Fifth Annual Submerged Lands Management Conference

Victoria, B.C. - October 1986

Conference Proceedings

Errata

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Page ii, 3rd row: "Bob Brodic" should read "Bob Brodie".

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Page 45, title and credit should read: "Issues in the U.S. Virgin Islands" prepared by Benjamin Nazario, Director, Coastal Zone Management, Department of Conservation and Cultural Affairs, U.S. Virgin Islands.

Page 136, line 9, "Shushwap Lake" should read "Shuswap Lake", and page 137, line 18, "Sushwap Lake" should read "Shuswap Lake".

FIFTH ANNUAL SUBMERGED LANDS MANAGEMENT CONFERENCE

VICTORIA, BRITISH COLUMBIA

OCTOBER 5-10, 1986

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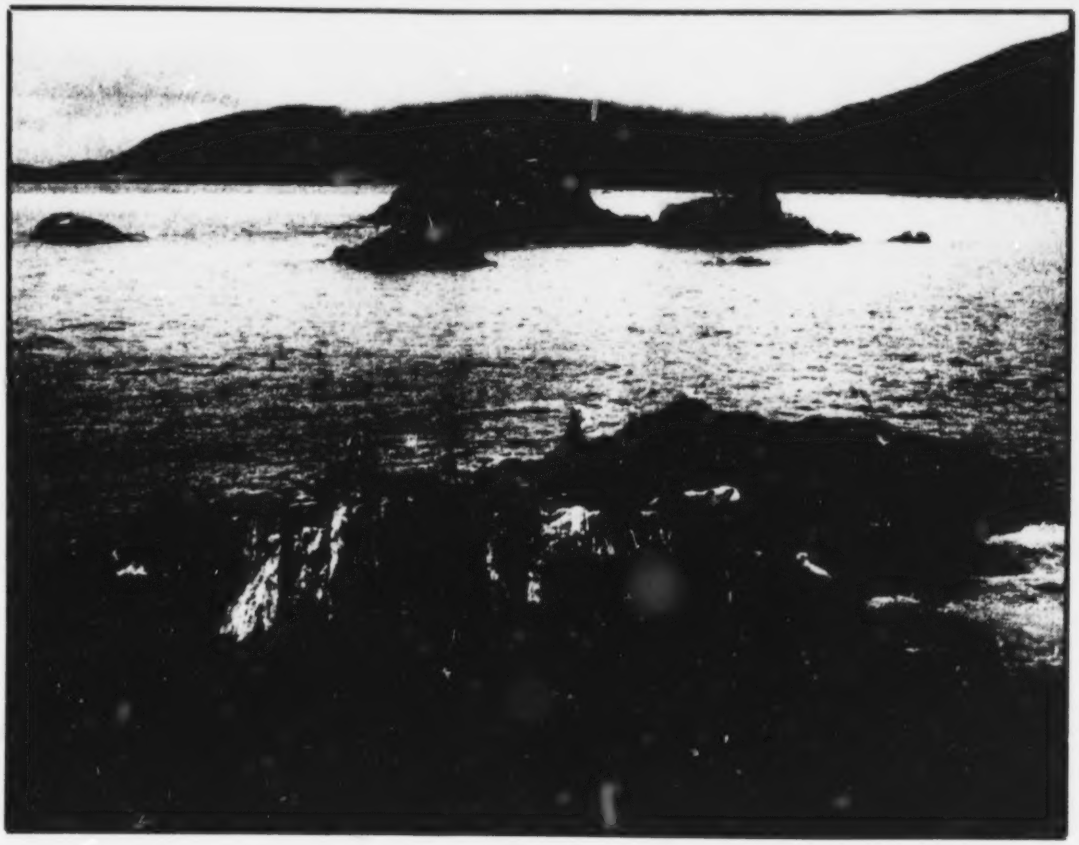
FOREWORD

Hosting the 1986 Submerged Lands Management Conference has been both a pleasure and a benefit for the Lands Division of the British Columbia Ministry of Forests and Lands. We felt challenged both to present the best conference possible, and to give the delegates as clear and as detailed a view as we could of the issues related to administration of submerged lands in our province. To be able to actually show our visiting colleagues examples of the issues we discussed with them was a great privilege. It has given us the sense that we now share an understanding of local submerged lands issues with experts from across North America. In that sense the 1986 Conference has been an investment which we share with all the conference participants.

To everyone who attended the conference, thank-you for your participation. It is my sincere wish that the accompanying proceedings will be useful to you.

Frank G. Edgell
Executive Director
Lands Division
B.C. Ministry of Forests & Lands

DAY 1



Ecological Reserves at Checleset Bay, British Columbia.

KEYNOTE ADDRESS

presented by Frank Edgell
Executive Director of Land Services
Ministry of Forests and Lands
British Columbia

OME
legates
5th ANNUAL
CONFERENCE

SPEAKER'S INTRODUCTION, BY JOE LOYER, CONFERENCE HOST

I have the pleasure to introduce our keynote speaker this morning, Mr. Frank Edgell. Frank is going to talk about the Ministry of Forests and Lands in British Columbia. He is exceptionally well qualified to speak on any subject about Ministry. He has been associated with the Ministry since 1960.

Initially Frank was in Legal Surveys in field operations throughout British Columbia. For the past thirteen years he has served in a number of senior management positions in Victoria and most recently as Director of the Land Policy Branch and Executive Director of Surveys and Lands Branch in the Ministry of Forests and Lands. Frank is currently the Executive Director of Lands Services and he is responsible for Ministry of Land Programs, Land Policy, Land Survey and Land Acquisition. In recent years he has been directly involved with the automation of the Crown Land and Registry Information System. Frank has a degree in Economics from the University of Victoria. He is an accredited appraiser with the Appraisal Institute of Canada, he is a registered professional agrologist, and a member of the Agriculture Institute of Canada. Ladies and Gentlemen, I call on Frank Edgell.

PRESENTATION

Ladies and gentlemen, welcome to Canada, to British Columbia, and to our provincial capital city of Victoria. It is my pleasure to open discussion at the fifth annual Submerged Lands Management Conference. It is gratifying to see such strong and diverse representation from the Atlantic and Pacific coasts as well as inland jurisdictions across North America. I understand that we have delegates here from as far away as the Virgin Islands, and from fifteen American states and five Canadian provinces.

Our Minister, the Honourable Jack Kempf, had planned to be present for the opening of this conference, but due to the election that is now under way in B. C. he is unable to be here today. However, Mr. Kempf has asked me to assure you that the Government of British Columbia is very pleased to host this conference which is being held in Canada for the first time. Since most of you come from outside of Canada, I will comment briefly on some of the differences between the operation of a U.S. state government, and that of a provincial government in Canada. First, on ministers and ministries: the ministers of provincial governments are elected and correspond to secretaries of state in the American government system. They are not, for the most part, the prayerful-type of ministers, except perhaps every three or four years around election time.

In our system the head of provincial government is the premier. He or she is not elected directly as premier, but takes office by being the leader of the majority party in the legislature. The premier chooses a cabinet of ministers to head the various departments or ministries of government just as in the American system. However, the premier must choose all of the ministers from elected members of the legislature. This cabinet of ministers corresponds to your executive branch of government. Below the minister in a provincial department or ministry is the deputy minister, the highest level of public servant in our system. The deputy is appointed by the government in power.

A second important difference is that the Queen as constitutional monarch is our symbolic head of Government. Hence the use of the term "Crown" land, a term that you will no doubt hear frequently over the next few days.

In Canada, the vast majority of Crown land is managed by provincial government agencies. Thus your host for this conference is "B.C. Lands," in the recently-formed provincial Ministry of Forests and Lands.

And now, a few words on the conference. It's quite obvious that the organizers intend to keep you moving over the next few days, first by arranging a boat tour to show you some of the coastline around Victoria. After a day of relative stability, they intend to move you up-island to Nanaimo, viewing aquatic tenures along the way. From there the conference moves on to the city of Vancouver and provides an opportunity for you to see the Vancouver waterfront first hand. Finally you will have the opportunity to experience our world's fair, Expo '86.

British Columbians are proud of Expo '86, given its size, quality, and the number of participating nations. Expo '86 celebrates the world of transportation and communication. It contains major exhibits from 46 different countries. Its corporate participants have committed over $135 million dollars to the fair. Expo '86 marks the first time that the U.S.A., the U.S.S.R, China, and Cuba have assembled exhibits together on one site. The variety and size of Expo marks it as a success among world fairs. More than

20 million visitors have attended the fair over the past six months. We invite each of you to take advantage of this opportunity.

It is also fitting that the fair is being held in Vancouver, as 1986 marks the 100th anniversary of the incorporation of that city, which now is a major Pacific Rim port in North America, and the third largest city in Canada.

I think it is appropriate for me to add yet another reason for British Columbians to celebrate 1986, for this year is the 75th anniversary of the creation of the first provincial park in British Columbia. Today we have a very active parks program, which is certainly encouraged by the lifestyle of our citizens as well as that of visitors from around the world. We have committed five percent of this province's land area to our provincial park program.

Let me say something about the rest of British Columbia and our approach to governing it. British Columbia comprises a total of 95 million hectares of land and freshwater bodies. Of this total, private holdings occupy about six percent. The rest is administered by the province, and almost exclusively by the provincial Ministry of Forests and Lands. Our population of three million, and all of our settlement areas, excluding those devoted to agriculture, occupy less than one percent of the province's land base. On the subject of submerged land, the province currently administers about 138,000 hectares (or 342,000 Acres) under lease and licence for a variety of uses. The current policy of Government prevents the purchase of submerged Crown land, except in rare cases and where approved by the Provincial Cabinet. Our offshore areas are currently the focus of legal proceedings to resolve an ownership dispute between the provincial and federal governments. At stake is the revenue to be derived from future exploitation of seabed resources. To date, the courts have ruled in favour of provincial ownership of the three straits between Vancouver Island and the British Columbia mainland.

Over the past three years the government of British Columbia has been challenged to develop new approaches and attitudes in order to stimulate economic development. Increasing the availability of Crown land for development, is one of the tools we have chosen to use. The Lands Division of

Forests and Lands has taken on an entrepreneurial style in the disposition and administration of Crown land. While continuing to safeguard the public interest, the Lands Division has become much more client-driven in its organization and its outlook. This has occurred in a number of ways.

First, the Lands Division has reviewed the services it provides and has cut back on the areas where it found itself in competition with private enterprise. For example, virtually all Crown land surveys are now performed by private surveyors rather than by government employees. Where previously Ministry staff performed 90% of its property appraisals, now 90% of this work is done by hired fee appraisers from the private sector. Provincially owned ski facilities, park facilities, even a golf course, have been turned over to private sector interests. By getting out of areas where government was in competition with business, the division has strengthened private sector interests and reduced administrative costs.

Second, the Lands Division has come to know its clients and to respond to their needs better than ever before. We have done this in a number of ways: by client surveys to measure satisfaction with staff courtesy, response time, and policy; by regular review of rental structures on Crown land tenures; by streamlining operating procedures; and by simplifying policies to promote flexibility. The division is also holding regular meetings with our large corporate clients to hear and address their concerns. We have proven to those clients that they are regarded as partners in enterprise and in development of our province. The objective is to respond quickly with innovative solutions to clients' problems.

Thirdly, the Lands Division has taken new approaches to the marketing of Crown land. Where previously almost all marketing of Crown land was conducted by the government, now local real estate boards advertise Crown land opportunities through their multiple listing services. The Lands Division developed a Crown land marketing catalogue listing over 1400 surplus government and Crown corporation properties totalling over $100 million in value during the last quarter.

And finally, the Lands Division is in the forefront of applying electronic technology to the problem of organizing information about Crown land from the standpoint of its clients. A good part of the Crown land registry information system is now automated, and work is progressing well in our commitment to develop a state-of-the art system over the next five years.

The staff of the Ministry of Forests and Lands, many of whom will be involved in our deliberations over the next few days, are justifiably proud of these accomplishments, and will be interested to share information and experiences with you.

I now invite you to carry on with your conference. The organizers, under the capable direction of Joe Loyer and his steering committee, have deliberately encouraged a British Columbian and Canadian content in the workshop sessions. I hope, in particular, that our B.C. experiences will be of benefit to you. As you tour our coastal waters, I invite you to see for yourselves the evidence of new growth and the potential of this province's submerged lands. To all of you I wish a productive and interesting conference, and to our visitors, a safe and happy stay in British Columbia.

WORKSHOP 1 - ISSUES IN SUBMERGED LAND MANAGEMENT - A REGIONAL PERSPECTIVE

1. Issues in British Columbia (Tom Cockburn)
2. Issues in Ontario (Sheralyn Yundt)
3. Issues in New Brunswick (John Kershaw)
4. Issues in U. S. Virgin Islands (Benjamin Nazario)
5. Issues in Florida (James MacFarland)

WORKSHOP 1

ISSUES IN SUBMERGED LAND MANAGEMENT

A REGIONAL PERSPECTIVE

Chairperson: Greg Roberts

Greg Roberts brings a perspective on submerged lands that comes both from his professional background and from his leisure activities of canoeing and kayaking.

Greg is the Director of Land Policy Branch with B.C. Lands in Victoria. Prior to joining Lands eight years ago, Greg worked as a planner in Northern Saskatchewan and with Indian Affairs in Alberta. He attended the University of Victoria and York University, graduating with a Master's degree in Geography.

ISSUES IN BRITISH COLUMBIA

prepared by Tom Cockburn
Senior Policy Analyst, Ministry of Forests and Lands
British Columbia

SPEAKER'S INTRODUCTION

Tom Cockburn is a Senior Policy Analyst, with the Land Policy Branch of the Ministry of Forests and Lands in British Columbia. Tom completed undergraduate work in Oregon and received a M.A. in Biology in California. In 1968, Tom moved to Canada and completed a Ph.D. in Marine Biology at the University of Victoria in 1976.

Since 1973, Tom has worked on resource management issues for the Provincial Government on various contracts. He began working with land management issues in 1976.

He will present the regional issues for British Columbia.

SUMMARY

British Columbia has a dynamic and diverse coastal shoreline totaling 27,200 km or 16,900 miles. The diversity of the coastline is demonstrated by rocky shores, sandy beaches, estuaries, bays, fiords and over 6,500 islands. The majority of the British Columbia mountainous coastline is unpopulated and has only limited access by land.

There are two main categories of issues related to the management of submerged Crown lands in British Columbia. These are:

1) Ownership and jurisdiction of land and resources;

2) Provision for development, recreational and economic opportunities while recognizing both social and environmental concerns.

Ownership and jurisdiction issues are in relation to Indian land claims and to resources associated with the seabed, particularly offshore petroleum and natural gas. It is the position of the Province that aboriginal title to land does not exist in British Columbia. In 1984, the Supreme Court of Canada determined that the seabed and its resources in the southern inland marine waters of British Columbia were owned by the Province rather than the Federal Government. Discussion is on-going between the two governments concerning the seabed of the northern inland marine waters.

Harvesting Mussels

The issues surrounding the management of submerged lands vary depending upon the use being proposed and the increasing demand being placed on submerged lands by other users. In British Columbia, very little coastal planning has occurred because of higher economic priorities of government.

The following figure demonstrates the diverse portfolio for both coastal and interior submerged Crown lands allocated in British Columbia. Over 77% of the submerged lands allocated are special purpose lands of which 95% are for ecological reserves and for conservation purposes. Submerged lands allocated for all other purposes total approximately 31,000 hectares or 76,000 acres. The largest uses of these lands are for industrial, institutional, aquaculture and commercial purposes.

Submerged Lands Allocated in British Columbia

Purpose	Area in Hectares (Acres)	
Agriculture	51	(126)
Aquaculture	3,413	(8,434)
Industrial	19,107	(47,213)
Commercial	2,138	(5,283)
Residential	953	(2,355)
Recreational	59	(146)
Community	434	(1,072)
Institutional	3,935	(9,723)
Quarrying	340	(840)
Transportation	205	(507)
Communication	928	(2,293)
Special Purpose	107,006	(264,412)
Total	138,569	(342,404)

The issues which affect the management of submerged Crown lands are administrative, social and environmental. Some highlights of the importance of these land uses and related issues are as follows:

Transportation and Shipping

- Ferries are a primary transportation link for many coastal communities.
- Shipping is important in the export of forest and mining products.
- Province is considering further development at Roberts Bank near Vancouver.
- Port development may affect fisheries habitat.

Coastal Log Handling

- Largest industrial use of submerged lands, with 15,161 hectares allocated.
- Important to forest industry as a coastal transportation route.
- Environmental concerns particularly related to protection of estuaries and fisheries.
- Recent proposal from forest industry for shared use of submerged land tenures is under consideration.

Aquaculture

- Fastest developing coastal industry in B.C. with 3,413 hectares allocated.
- "Land rush" has resulted in a large number of applications for submerged Crown land.
- Issues with recreational boaters, upland owners, environment, fisheries, land valuation and pricing.

Floating Cabins and Communities

- No existing policy for floating cabins.
- Difficult to enforce trespass due to mobility of floating cabins. Only 5 hectares allocated.
- Floating community proposals require support of local government before B. C. Lands will consider providing the necessary tenures.

Marinas

- Important commercial use of submerged lands with 262 hectares allocated.
- New policy developed through negotiations with marina operators.
- Policy provides for phased development by a sequence of tenures.
- Pricing based on a percentage of potential gross income from moorage.
- Marinas are the basis for the outstanding boating recreation in British Columbia.

Private Moorage

- Policy applies to permanent private moorage facilities and 96 hectares have been allocated for private moorage.
- Seasonal facilities do not require tenure.
- Many existing permanent facilities in trespass.
- Enforcement of tenure policy is applied with caution due to political repercussions.

Offshore Petroleum and Natural Gas Development

- Environmental implications has been the focus of a recent provincial-federal review for the resumption of offshore exploration on the British Columbia coast.
- Decision expected in near future.

Quarrying and Mining

- Quarrying for sand and gravel is mostly an upland activity; several small operations on submerged lands.
- A total of 340 hectares, including barging facilities, have been allocated.
- The question of royalties is being reviewed.
- Interest has been indicated by a major European company for large scale sand and gravel extraction on submerged lands in British Columbia. 17-18 million tonnes of offshore aggregate material is used in Britain annually. This represents 20% of the total aggregate used in Britain annually.
- No mining of seabed at present in British Columbia; Land Act tenures provided for submerged lands for mining tailing disposal and shipping facilities.

Ecological Reserves, Conservation Areas and Parks

- Significant coastal submerged lands totaling over 47,000 hectares for education and scientific research are set aside as ecological reserves.
- A total of 41,245 hectares of submerged land is reserved for fish and wildlife management.
- Submerged lands important for recreation are included in marine parks under the Park Act.
- Competing industrial/commercial interests argue that establishing ecological and conservation reserves creates foregone opportunity costs in relation to other potential uses of the land.

The submerged land issues in British Columbia are management challenges which can be met. In British Columbia it is the practice to view management challenges as opportunities which contribute to the economic, environmental and social benefits of the Province.

ISSUES IN SUBMERGED LAND MANAGEMENT

prepared by Sheralyn Yundt
Director, Ministry of Natural Resources
Ontario

SPEAKER'S INTRODUCTION

Sherry Yundt is Director of the Land Management Branch for the Ministry of Natural Resources in Ontario.

Her academic background includes an Honours Bachelor of Arts degree in Geography from University of Guelph and a Master's degree in Geography from the University of Waterloo.

Sherry has worked as a Planning Advisor for Sand and Gravel Association Limited in England and as Executive Secretary for the Ontario's Mineral Aggregate Working Party.

Sherry will present the Ontario perspective on Issues in submerged land management.

SUMMARY

Ontario is the second largest province in Canada and has an extensive network of lakes and rivers. The majority of the land and water is managed by the Ministry of Natural Resources. Their policies on submerged lands deal with many issues. Topics of immediate concern are the preservation of shoreline wetlands through the management and disposition of waterlots, the control of flooding and erosion on the Great Lakes shoreline, and the development of hydro-electric power sites.

Land granting practices over the past two centuries have created a conflict of shoreline ownership. Privately owned parcels adjacent to waterways can have a waterward boundary that is:

a) at the water's edge;
or b) at high water mark;
or c) at the landward edge of a 66 foot shoreline road allowance or Crown reserve.

Each boundary type creates an interpretation of ownership and land owners have a riparian right to protect their lands from the encroachment of water. The result is that the waterward boundary of a property can move with the rise and fall of water level, the time and placement of fill, or the construction of shoreline protection. Shoreline marshes compound the problem because the boundary of a marsh has been difficult to establish physically and legally.

The situation is at a critical stage and a major portion of the natural littoral zone of the St. Lawrence River and the lower Great Lakes will be lost without action. The Province is developing wetlands policy that is expected to include legislative measures to control filling, dredging, and development below the high water mark on Crown and private lands. A public education program will be undertaken to seek private landowners' support and participation in the preservation of shoreline wetlands.

The Ministry has two policies for management of shoreland utilization. Existing facilities that are non-commercial, adjacent to owner's dryland parcel and do not contain living facilities are condoned by the Ministry. They are "free-use" facilities and are typically boathouses, docks, shoreline protection works and fill. Commercial and industrial use of the Crown shoreline requires formal authority under the Public Lands Act. This is granted subject to several conditions including compliance with federal and provincial statutes and local government planning and zoning.

The attempt to regularize the non-free waterlots has generated revenue for the Crown while providing a standardized approach to the use of Crown shoreland.

A Shoreline Management Review Committee is investigating the roles and responsibilities of government agencies and private landowners in shoreline management. Flood damage control on the Great Lakes is their main objective and their recommendations for long-term solutions will be submitted in the fall of 1986. For the present, the province has implemented a short-term program of grants and loans to local government agencies to assist in the construction of flood control structures and the repair of flood-damaged properties.

The lakes and waterways can provide a source of revenue for the province as well as creating problems of flooding and ownership. A survey of potential hydro-electric sites was made throughout the province and the Ministry of Natural Resources has a water power lease agreement in place to encourage the development of this resource. The lease agreement conveys a right to the land over which the water flows. Thus the lessee has a registrable interest in the land, right of exclusive possession and control of trespass. The Crown receives in return rental revenue based on kilowatt production.

PRESENTATION

The Province of Ontario has approximately 228,000 lakes and borders the U.S.A. in the south via five of the Great Lakes and the St. Lawrence River. In the north it borders Hudson Bay and James Bay. Along the Great Lakes and the St. Lawrence River, there are 5,300 kilometres of shoreline. This extensive network of lakes and rivers in Ontario provides unlimited opportunities for a wide variety of water-related activities ranging from shipping and fishing to boating, cottaging, and the generation of electricity.

The Province of Ontario is 36 percent larger than the State of Texas and 23 percent larger than the Province of British Columbia. This is a large Province and 87 percent of its area is Crown land or water managed by the Ministry of Natural Resources. With very few exceptions, the land forming the beds of navigable waterways in Ontario is provincial Crown land.

Roughly 60 million cubic metres of water are used in Ontario each day, which equates to 6,600 litres for each Ontario resident per day. Water generates one-third of Ontario's electricity. Ontario ports annually handle about 74 million tonnes of goods on the St. Lawrence Seaway and the Great Lakes.

As a result of the immense amount of water Ontario has to manage, it is obvious that we are concerned with many issues related to the management of submerged land. In this presentation we will touch on fives issues related to Ontario as follows:

1. Preservation of Shoreline Wetlands;
2. Management of Crown Shorelands;
3. Disposition of Waterlots;
4. Flooding and Erosion on the Great Lakes Shoreline;
5. Small Hydro Power Sites.

Of course, there are other issues and topics that could have been covered if time had permitted, such as: navigability, houseboats, gas leases in Lake Erie, lake planning for cottages in Northern Ontario, tourist lodges, lake capacity for development, shoreline boundaries and loss of Crown title through adverse possession.

Preservation of Shoreline Wetlands

Ontario is working toward a comprehensive wetland policy. The Land Management Branch is primarily involved with a specific problem related to old land grants and the significance of those land grants in relation to the incessant loss of shoreline wetlands.

Shoreland, the interface between land and water, is a vital link in the ecological chain for fish, furbearers, waterfowl, and various other marine and terrestrial life. Shoreline trees and shrubs provide food, shelter and cover, and the weedy marsh areas of shoreline shallows are highly productive of insects and other essential food for birds, fish, and other animals.

Human development along shores, such as filling, dredging and the construction of docks, marinas and shoreline protection works, is permanently altering or destroying shoreline wetlands. In some localities, whole new lots have been created by filling. And, insofar as these activities are being conducted on private lands, MNR is largely powerless to prevent or control the alteration or destruction of these valuable wetlands. Existing legislation, for example the Fisheries Act, the Beach Protection Act and the Lakes and Rivers Improvement Act does not directly address the wetlands preservation issue.

Particularly along the lower Great Lakes and the St. Lawrence River the situation has reached a critical stage and it must be assumed that, without action, the major portion of the natural littoral zone will be forever lost.

The problem is most severe in those parts of Southern Ontario (generally the area south of a line from Owen Sound to Ottawa) where original Crown grants of land were "to the water's edge."[1]* In a water's edge grant the boundary between the privately owned land and the Crown-owned bed is the visible water's edge, which of course moves landward or waterward as the level of the water rises or falls.

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[1] As a result of variations in surveying systems and land-granting practices over the past two centuries, privately owned parcels adjacent to waterways may have a front boundary which:

a) is at the water's edge;
or b) is at the high water mark;
or c) is at the landward edge of a 66 foot shoreline road allowance or Crown reserve.

Holders of water's edge grants have riparian rights which, amongst other things, entitle them to protect their land from the encroachment of water. Thus they can, at low water, construct dykes or breakwalls or dump fill on "their" lands with the same result that any subsequent rise in water level no longer has any effect and the wetlands that existed between the low water mark and the former high water mark are eradicated.

The problem is compounded where there are shoreline marshes because the whereabouts of the Crown/private boundary is always arguable: is the marsh part of the granted land, or is it part of the Crown-owned bed? All too often MNR spends thousands of dollars on surveys and research of a given case to prove that the marsh is Crown, only to find that, while the research was going on, the landowners (who felt that the marsh belonged to them) had filled it in. Of course, once filled in, the marsh's ecological value is forever lost and usually the only practical thing left for MNR to do is to issue authority for the fill on Crown land. This, at least, prevents the occupants from acquiring prescriptive rights to the land through adverse possession.

The matter is further complicated by some court cases which have held that "marsh is land" and therefore part of the private land, not part of the Crown bed. Here again, the precise whereabouts of the waterward edge of the marsh (the supposed boundary between the private and the Crown land) is exceedingly difficult to establish because a marsh rarely has a distinct waterward edge.

MNR has wrestled with this problem for many years. By an amendment in 1940, The Beds of Navigable Waters Act asserted that the Crown bed of a navigable body of water extended to the high water mark. However, in view of the many land grants that had earlier been made "to the water's edge", the high water mark provision was viewed as expropriatory and was repealed in 1951.

In summary, the province's efforts to deal with the problem have so far been ineffective. All we have to show for our efforts is a drastic depletion of natural shoreline wetlands and a corresponding decrease in the fauna that depend on those wetlands for survival, coupled with actual loss of Crown title to lands which have been possessed, adverse to the Crown, for 60 years or more.

In our view, the only effective way to deal with the problem would be to pass legislation to control filling, dredging, development, and other disturbance below the high water mark on Crown and private lands alike. This has many pros and cons, but it has been done in the State of Michigan for many years. Another approach would be to undertake a public education program, aimed at the owners of land along waterways, to communicate the Ministry's shoreline management concerns and seek the landowner's support of and participation in the preservation of shoreline wetlands. We plan to press forward with both these approaches in the very near future.

MANAGEMENT OF CROWN SHORELANDS

Policy

At the present time, our management of Crown shorelands, insofar as structures are concerned, is based on two distinct policies: "free uses" on the one hand, and proper authorization under the Public Lands Act on the other.

The "free use" policy resulted from the fact that over many years, some 250,000 small docks, boathouses, shoreline protection works, and fill had been placed on Crown shorelands in front of private property, with the tacit, but not formal, approval of the land managers of the day.

When this situation was reviewed in the late 1970's it became obvious that any wholesale effort to force these occupants into taking out proper authority for the Crown land involved would be counter-productive from the political, socio-economic, and pragmatic points of view. Instead the Ministry shorelands are a necessary adjunct to the enjoyment of waterfront properties, and therefore should be allowed to remain largely undisturbed.

The policy in effect since 1980 is that these small waterfront facilities may continue to occupy Crown shorelands provided the following criteria are met:

1. they are used strictly for private (non-commercial) purposes;
2. they are mutually considered to be a necessary adjunct to the use and enjoyment of the adjoining dry land property;
3. they are situate directly in front of the dry land parcel;
4. they do not interfere with "the neighbour's" use and enjoyment of their waterfront;
5. they are not detrimental to Ministry of Natural Resources programs such as fish and wildlife habitat;
6. they do not obstruct any drain or detrimentally alter the natural movement of water;
7. they have been approved or exempted by Transport Canada under the Navigable Waters Protection Act if required; and
8. in the case of a boathouse or other building, the facility consists of a single storey containing no living accommodation, kitchen, or toilet facilitaties.

Existing Facilities

Where all the above criteria are substantially complied with, the Ministry will simply condone an existing improvement's encroachment onto Crown land and will offer no letter or other form of written permission for it.

Where a facility does not substantially comply with one or more of the above requirements, the occupant shall be asked to take appropriate corrective action, failing which the structure may be viewed as an unauthorized occupation of Crown land and dealt with as such.

New Facilities

Where a landowner proposes constructing a new facility on Crown shoreland and wishes to avail himself of the "free use" policy, he must first obtain permission to construct from the MNR district manager.

Within a municipality, the district manager, before approving the application, must satisfy himself that the proposed development is in conformity with the municipality's established planning policies.

Where a proposed improvement will be located partly on Crown land and partly on private or municipal land, the onus is on the applicant to obtain from the municipality whatever permission or building permit is required for the portion on the private or municipal land.

DISPOSITION OF WATERLOTS

Policy

Our policy for authorizing occupations of Crown shorelands is applicable to three types of situations:

1. an occupant who, although eligible for free use, wishes to take out legal authority to occupy the Crown land involved;

2. a facility which, although used only for private (non-commercial) purposes, exceeds the criteria for free use (e.g. a boathouse containing living quarters);

3. any facility used for commercial or industrial purposes.

The policy endeavours to establish a standardized approach to the disposition of Crown shorelands. Dispositions may be by any of the means provided for in the Public Lands Act and regulations--whichever best suits the needs of the applicant and the prevailing circumstances.

Qualified Applicants

1. An applicant who is a riparian owner (i.e. his land is lapped by the water):

   Because a riparian owner has (amongst other rights) an absolute right of access to the water, his application for a waterlot should be favourably considered);

2. An applicant whose land lies immediately behind a shoreline road allowance or 66 foot Crown shoreline reserve:

   a) Where the 66 foot strip is Crown-owned (i.e. a road allowance in unorganized territory or a Crown reserve), the application for waterlot should be favourably considered;

   b) Where the shoreline road allowance is municipally owned, the applicant for waterlot must obtain the municipality's written permission to use the road allowance and the attendant riparian rights, or purchase or lease the road allowance from the municipality pursuant to the Municipal Act. Upon proof that one or the other of these requirements has been met, the application for waterlot should be favourably considered.

Rents

Rents charged for various size of waterlots will be presented at the conference.

General Rules

1. In determining the acceptability of an application for any waterlot, all pertinent legislative requirements must be considered, e.g. the Fisheries Act, the Lakes and Rivers Improvement Act, the Beach Protection Act, etc;
2. Within a municipality, the district manager shall, before approving the application, satisfy himself that the existing or proposed development is in conformity with the municipality's established planning policies;
3. Within municipalities, the onus is on the applicant to obtain any municipal building permit that may be required;
4. If proposed or existing improvements are of unsatisfactory size or design, the applicant shall be instructed to make appropriate and reasonable modifications;
5. The boundaries of a waterlot should be located so that, insofar as possible, no part of the waterlot lies outside the sidelines of the dry land parcel, when those sidelines are extended by any of the standard methodologies for sideline extension;
6. Where an applicant holds the adjoining dry land by other than freehold, the tenure document granted to him for the waterlot must be coterminous with the rights he holds in the dry land;
7. Where the use or proposed use of a waterlot is in conflict with Ontario's flood plan policy, tenure shall not be granted;
8. Every tenure document shall contain an appropriate indemnity clause and improvement removal clause;

9. Authorization for new or existing works which extend beyond the normal shoreline (e.g. groynes, off-shore breakwaters, beach sills, etc.) is commonly subject to additional requirements such as an engineer's report which indicated that the works will cause no adverse effects. This is because such works usually have a significant effect on shore processes--causing littoral drift for example--to the detriment of neighbouring landowners. Tenure for such works may issue only if the additional requirements are met;

10. Where deemed necessary by the district manager, an application must be accompanied by written comments from neighbouring landowners whose properties might suffer adverse impacts as a result of the proposal;

11. Where an existing occupancy cannot be authorized because it fails to comply substantially with the requirements of this policy and the occupant refuses or neglects to take reasonable corrective action, or where the occupant, not being entitled to "free use", refuses or neglects to take out authority, removal of the improvements or structure may be undertaken.

Removal with the support of the local municipality should be considered where the improvement or structure:

(i) is located on Crown land in front of someone else's property and it is concluded that the normal use and activities of the other owner(s) are adversely affected;

(ii) is of a size substantially larger than that required for the current purpose or use;

(iii) has an adverse impact on the programs of this Ministry;

(iv) is in conflict with the current land use pattern of the area;

(v) is detrimental to the normal pursuits of other users of the waterway;

(vi) other valid reasons.

Summary

Although Ontario has always had legislation and policy for dealing with unauthorized occupations of Crown waterlots, implementation and enforcement were traditionally spotty with the result that, over the years, a significant percentage of shoreland installations "fell through the cracks". Thus the current thrust, to regularize those non-free waterlots which up to now have been unauthorized, is a relatively new initiative in the province. We see this initiative as having several beneficial results: it generates revenue for the Crown and it gives the holders a legal basis for using the property as collateral for loans, for repelling trespassers, for obtaining insurance on the property, or for transferring or bequeathing it. Perhaps most important, it will ensure that all non-free occupants are treated alike, as distinct from the current situation where some are paying rent and others are not.

Over the next few years, we hope to have this program fully completed.

FLOODING AND EROSION ON THE GREAT LAKES SHORELINE

Levels and Damage

In 1985 record high water levels on the Great Lakes caused extensive flooding and erosion resulting in damages in Ontario estimated at approximately $25 million. Significant damages have also been reported in the U.S.A., especially in Michigan. Levels have remained at record high levels throughout 1986 resulting in continued problems and damages.

Ogoki Diversion

There has been some concern in the U.S.A. related to the impact of the Ogoki Diversion by Ontario Hydro on the high lake levels in the Lower Great Lakes. Ontario contends that the Ogoki Diversion has a very negligible effect on lake levels. In 1985, however, as a goodwill gesture and at the request of the U.S. State Department, the diversion was completely closed from August to December.

Having regard to the insignificant impact of the Ogoki Diversion on lake levels and the concerns raised by native peoples on the Albany River System regarding the re-diverted waters to that system and the cost of lost hydro generating opportunities, a decision was made to allow Ontario Hydro to return to normal operating conditions by about mid-May 1986.

Emergency Measures

There has been considerable interest with regard to what Ontario is doing in response to the impacts of high lake levels. Ontario implemented a number of emergency measure programs in 1985. These measures were short-term and the programs include:

- free technical advice for landowners (Ministry of Natural Resources);
- low interest loans to landowners for works and repairs, under the Shoreline Property Assistance Act (Ministry of Municipal Affairs);
- unconditional grants to municipalities where unanticipated costs would unduly burden the local tax base (Ministry of Municipal Affairs);
- free sandbags to property owners to be used in emergency situations;
- grants for repairs to municipal roads and structures (Ministry of Transportation and Communications);
- grants to Conservation Authorities for flood control structures;
- grants for repairs to agricultural dikes damaged by high lake levels (Ministry of Agriculture and Food);

These programs have been extended until March 31, 1987.

Shoreline Management Review Committee

Ontario established a Shoreline Management Review Committee to investigate and make recommendations on long-term solutions for shoreline management. It will also look at the roles and responsibilities of the various levels of government and of private landowners. The Committee includes representatives from provincial and municipal governments as well as the general public. Ontario cannot control extreme water level fluctuations in the Great Lakes, but it can work to minimize potential damage to shoreline properties. This could entail determining how remedial works should be planned to solve existing problems in built-up areas and how better land use planning can help avoid new problems; for example, bylaws to prohibit development in damage prone areas.

The Committee has held public meetings this past summer in communities along the Great Lakes shoreline in Ontario. The meetings have allowed members of the public who are directly affected by high water levels to make their concerns and suggestions known. A report will be prepared by the Committee and submitted in November, 1986.

SMALL HYDRO POWER SITES

The Ontario Government encourages private sector development of small water power sites and a streamlined approval process has been developed. The Ministry of Natural Resources has undertaken a comprehensive survey of potential hydro electric resources throughout Ontario. Water power development usually involves Crown lands under the administration of MNR and therefore proposed developments are fully reviewed both internally and publicly where warranted (Environmental Assessment Act) before being offered for disposition.

Type of Sites

1. FIRST COME--FIRST SERVED
2. Crown land sites with facilities:
    1. ALL SITES WILL BE ADVERTISED, INVITING OFFERS TO DEVELOP;
    2. DEVELOPMENT PROPOSALS MAY BE INITIATED BY EITHER PROPONENT OR MNR DISTRICT MANAGER.

MNR selects the best proposal on the basis of:

1. The engineering acceptability of the proposal;
2. The amount of money the proponent offers to pay for the use of the Crown land involved, including any existing Crown owned facilities (e.g. a dam) on the land;
3. The most efficient use of the water resource for power generation;
4. The degree to which the proposal considers or mitigates any social or environmental conflicts;
5. The proponent's financial ability and expertise in developing small hydro sites.

General

Once approvals are obtained, the proponent has up to 36 months to put the site into water power production.

Characteristics of a Water Power Lease Agreement

1. Water power privileges are granted in the form of water power lease agreements by the Ministry of Natural Resources under the Public Lands Act. They are registered in Land Registry offices.

2. The term of duration of a Water Power Lease Agreement is negotiable. Normally it is issued for a 10-year period with rights of renewal for four additional 10-year terms;

3. A Water Power Lease conveys a leasehold right to the land over which water flows. The leaseholder has the right to the water power that can be generated from the difference in height of the water entering and leaving the lease lands. The leaseholder also has rights of exclusive possession and can control trespass;

4. Rent is calculated by the amount of electrical energy produced. The formula is adjusted annually according to the consumer price index;

   The current rate is approximately $5.70 per annual average horsepower or $7.65 per average annual kilowatt. If Ministry facilities are being leased, a percentage of gross income is also negotiated. These rates come into effect after a 10-year waiver period for new installations.

Currently hydro water power generates $90 million annually for the Crown. Ontario Hydro is reviewing nuclear power in Ontario and looking at all old hydro plants to see if they can be rehabilitated so water power has a bright future in Ontario.

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ISSUES IN NEW BRUNSWICK

prepared by John Kershaw
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SPEAKER'S INTRODUCTION

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SUMMARY

The paper to cover the major issues of:

- Federal/Provincial land ownership;
- Interagency coordination;
- Traditional fisheries versus new aquaculture industry;
- Establishing proprietary rights;
- Land use monitoring.

New Brunswick Involvement in Coastal Management

The total land base of New Brunswick is 9,440,000 hectares. Of this total 7,240,000 hectares (77%) is uplands and 2,200,000 hectares (23%) is offshore submerged land. The Crown owns 43% of the uplands. Most of the submerged land remains in Provincial Crown ownership although some limited parcels are vested in either the Federal Crown or in private interests.

The Province of New Brunswick therefore has jurisdiction over approximately two million hectares of aquatic land in the coastal areas of the Province. These aquatic lands, which include the seabed and water column, are ungranted Crown Lands under the administration and control of the Minister of Natural Resources and Energy (DNRE).

DNRE has been involved in the management of resources located in New Brunswick tidal areas since at least 1906, when the Public Domain Act established the Province's authority to issue leases for clam beds. Little interest was shown in the oil, gas and mineral resources in tidal areas until the 1940's. Since that time activity in this area has increased significantly. DNRE has issued licenses for oil and gas exploration (i.e. drilling and seismic work) in the Northumberland Strait, Bay of Chaleur and the Bay of Fundy. In the Bay of Fundy, mineral claims have been registered on gold deposits which extend into tidal lands. The Province has also initiated controls on the removal of beach aggregates in recognition of the potential environmental impacts (e.g. erosion, turbidity).

In the 1950's the Province commenced leasing aquatic Crown Land for lobster pounds. At present there are approximately twenty (20) such lobster pound sites in the Bay of Fundy area. Lobster pounds represent large capital investment and elaborate improvements on Crown land. For example, many of the existing lobster pounds are valued in excess of one to two million dollars each for mortage purposes.

DNRE also designated sites and issues proprietary rights to accommodate finfish and shellfish aquaculture operations. In addition, DNRE issues easements and leases to accommodate submarine electrical and communication cables, as well as pipelines, marinas and fish processing facilities. Although DNRE has leases for some wharf and breakwater facilities developed by private interests, it has been more common to transfer such lands to the appropriate Federal authority if it is a public facility.

Contested Ownership

The Province has consistently claimed ownership of certain coastal aquatic lands. While this claim has not been formally recognized by the Government of Canada, little doubt remains with regard to the Province's claims in the Bay of Fundy and the Bay of Chaleur. The Province has also consistently maintained that the boundary between Prince Edward Island and New Brunswick is the mid point of Northumberland Strait. The major area of contention lies north of Point Escuminac to Micsou Island fronting the Gulf of St. Lawrence.

Section 7 of the British North America Act (now the Constitution Act, 1967) states that New Brunswick shall have the same limits as at the passing of the Act. This provision was, of course, subject to the division of powers between the federal government and provincial governments contained in sections 91 and 92 of the Act. Specifically section 108 of the Act designated certain provincial property which has effectively transferred to the federal government. Included in the schedule referred to in that section are such things as public harbours, canals and rivers and lake improvements. Discussion continues to this day on the question of what actual lands were affected by that section, such as the definition of what constituted a public harbour at the time of Confederation.

Interagency Coordination

The multiplicity of government agencies (both federal and provincial) involved in the management of the offshore creates confusion in policy development and project review. It complicates the process of coordinating the use and allocation of provincial aquatic Crown land, and informing the public concerning agency mandates and responsibilities.

The responsibilities of these agencies include those with regulatory control and those that provide stimulative or developmental assistance. In addition, some agencies, not directly involved in offshore management, nonetheless render decisions that can result in direct impacts on the aquatic land uses. An example of the latter case is the N.B. Department of Municipal Affairs and Environment, which regulates the location of effluent outlets (e.g. municipal sewage) into the offshore. In addition, the commitment of stimulative funding, prior to decisions on the allocation of a site, can jeopardize DNRE's position in relation to the applicant.

The primary role of DNRE is coordinating the development of policy and the review of applications in an effort to direct and integrate the various aquatic land use demands. DNRE relies on other resource agencies, such as the provincial Department of Fisheries, and the federal Departments of Fisheries and Oceans and Transport Canada (which includes the Coast Guard) to provide input within their respective mandates. However, DNRE must synthesize this input to provide a recommended course of action in both policy formulation and project review.

Traditional Fisheries

The growth of aquaculture in the Bay of Fundy concerns local fishermen involved in the more traditional fishery activities (e.g. herring weirs, lobster fishery, scallop dredging, herring shut-offs, groundfish, etc.). These concerns relate to the potential impact that aquaculture operations may have on their activities and, in fact, their livelihoods.

The current practice of DNRE is to give the traditional fisheries a high priority in the decisions relating to the locating of aquaculture sites. These fishery activities provide important social and economic benefits both to the local area and to the province as a whole. However, while DNRE supports the principle of integrating new uses with the more traditional activities, there are difficulties in obtaining reliable information on where the traditional fishery activities are practiced. These activities are often not site-specific. Further, there are no concrete data on how an aquaculture operation will impact on any given fishery activity. For example, the location of salmonid cages may adversely affect the operation of a herring weir even though located some distance away, if the cages are located in a herring fishway. Further, the normal operations of an aquaculture operation may affect herring movement. Night lights, noise, boat traffic and the disposal of rancid feed and dead fish in the water have all been cited by weir fishermen as practices by aquaculture operations that influence herring movement. Thus, while the location of a specific traditional fishery activity may be known, there is a lack of scientific data relating to how these uses interact. This lack of knowledge complicates the designation of areas for aquaculture, as it is unclear how wide a zone to leave between the various activities. It is noted that the federal Department of Fisheries and Oceans is preparing to initiate a number of studies on the interactions between the herring fishery and aquaculture operations.

DNRE is striving to ensure that aquaculture operations are integrated with traditional activities as smoothly as possible and is currently evaluating the various alternatives of obtaining direct public input from local fishery groups.

Proprietary Rights

As the government department charged with the administration and control over tidal lands, DNRE is the only agency that can issue proprietary rights in the offshore areas. As noted earlier, DNRE currently issues proprietary rights (i.e. leases, easements) to accommodate many uses in these areas, including finfish and shellfish aquaculture, lobster pounds, processing facilities, submarine electrical and communication cables, breakwater facilities, marinas, etc.

In exchange for proprietary rights from the province, the user is required to manage the aquatic Crown land in a manner determined to a level set by DNRE and other appropriate government agencies; pay a rental based on the market value of the land; and provide a survey of the site. The most important management component of a lease is the "site development plan" which the lessee submits as part of the lease agreement. This plan outlines the details as to how the site will be developed and is the most important tool the province has in ensuring each site is well managed and utilized to its maximum potential. Through the site development plan and other lease provisions the province is able to ensure that the operation of each site is in the best interests of the public, including other lessees located nearby and other users of aquatic land.

In addition to the increasing numbers of lease applications for finfish and shellfish aquaculture and partly as a direct result of these applications, a number of other, more traditional users are approaching DNRE seeking proprietary rights to the aquatic land associated with their use. In addition, DNRE anticipates that upland owners will soon request aquatic leases adjacent to their property in an effort to exclude other uses.

Land Use Monitoring

There is a wide range of demands placed on the offshore for industrial, commercial and recreational uses. DNRE's land management mandate and issuance of proprietary rights for aquatic land places DNRE in a protectionist role for the aquaculture industry as well as the other authorized uses. DNRE's monitoring of land use activities and impacts in the inland tidal areas is now limited but must expand, to ensure that potential conflicts are avoided or minimized and that opportunities for multiple use are realized.

Harbour dredging and ocean dumping are two examples of activities that could adversely impact other uses (e.g. siltation, contaminants). The influence of upland uses on the inshore tidal areas must also be evaluated. Upland uses include both residential (sanitary) and industrial discharge or residential/cottage development along the coastline which may block traditional access points to the offshore uses. DNRE must also be cognizant of recreational demands and activities. For example, Parks Canada is currently evaluating the feasibility of establishing a national marine park in the West Isles areas of the Bay of Fundy; and DNRE's programs will be affected.

Other activities requiring monitoring would include any extraction of beach aggregate material or other mineral (e.g. placer gold) in the N.B. tidal areas. Broader issues may include reviewing any proposed oil tanker routes and emergency measures for oil spills. DNRE especially needs to monitor the uses it has authorized to ensure they have a minimal adverse impact on the environment and other uses and to ensure that structures are situated in approved locations.

AQUACULTURE

The three provincial departments currently involved in aquaculture in New Brunswick are Fisheries, Commerce and Technology, and Natural Resources and Energy. The Department of Fisheries' principal role is in the culturing phase of the product and includes the promotion of the new industry through extension services, incentives and loans, training, and technical advice. The N.B. Department of Fisheries and Federal Department of Fisheries and Oceans subsidiary agreement on fisheries has allocated a considerable amount of stimulative funding to the aquaculture industry in the form of grants to applicants who meet certain eligibility requirements. This funding is targeted specifically to the culturing phase of the product.

The role of the N.B. Department of the Commerce and Technology is also that of promoting the industry but primarily during the processing phase of the product. To date, the primary focus of that Department has been twofold: 1) the provision of extension services in marketing; and 2) the allocation of small business loans. For example, in the Bay of Fundy area the Department of Commerce and Technology facilitated discussions between the local finfish producers on the establishment of "Atlantic Silver", an industry marketing board. The small business loads are primarily targeted to aid the establishment and upgrading of processing plants.

The primary role of the Department of Natural Resources and Energy is to allocate aquatic land for aquaculture grow-out sites through its leasing program. However, leases are also issued for associated uses such as fish hatcheries and shellfish depuration facilities. This task includes the integration of the new uses (i.e. finfish and shellfish aquaculture) with established uses (e.g. traditional fisheries, recreation, oil, gas, minerals). The allocation process demands consultation with other resource agencies to identify potential impacts. To facilitate decisions on application, the department has established an advisory committee composed of representatives from the provincial Department of Fisheries, the federal Department of Fisheries and Oceans and Transport Canada (Coast Guard).

In a concerted effort to promote the aquaculture industry in New Brunswick, the federal and provincial governments have established the Southern New Brunswick Aquaculture Development Committee, composed of both government and industry representatives, to address some of the issues associated with the development of the industry. Working groups have been established under the auspices of this committee to address such issues as cage separation distances and the feasibility of shellfish aquaculture in the Bay of Fundy. DNRE has participated actively in some of these working groups.

Aquaculture Applications

	June 1984 - Sept. 1986				
	RECEIVED	APPROVED	PENDING	REJECTED	WITHDRAW
FINFISH	117	41	32	33	11
SHELLFISH	42*	8	5	23	6

* of this total 37 are mussel applications, 3 are scallops, 1 is a dual mussel/scallop, and 1 is a clam application.

In addition, DNRE has received 9 applications for leases to support finfish hatcheries, all of which are pending.

Leasing Program

Applications to lease aquatic Crown land are accepted at the local Department of Natural Resources and Energy district office. In the near future each applicant will be asked to complete an aquatic land lease application form and proposed site development plan. The site development plan includes detailed plans outlining the location of the site and the improvements (structures) that will be located on the site. Each application must also be accompanied by a non-refundable application fee.

Each aquatic land lease application is then reviewed by a number of provincial and federal agencies to address issues such as the impact of the proposed use on upland owners, navigation, surrounding uses, etc. All federal and provincial requirements must be met prior to occupation of the site being authorized by DNRE.

If the application is approved, the proposed site development plan will be amended as required, and the application will be issued either a license of occupation or a lease.

A license of occupation is issued by the Minister of Natural Resources and Energy which authorizes the applicant, called the licensee, to occupy the Crown land described by the license for a period of up to three years. A license of occupation allows the licensee to commence experimental operations without the added expense of a lease. The annual fee is $55.00 and no survey is required. A license of occupation cannot be assigned to another party. A licensee may apply for a lease at the conclusion of the experimental phase. In some instances, a new applicant may apply directly for a lease.

A New Brunswick Crown land lease is a legal contract authorized by the New Brunswick lieutenant-governor-in-council. This contract is between DNRE, the lessor and provincial administrator of the land, and the applicant, called the lessee, for Crown land the applicant wishes to occupy. For example, under the terms of the lease the lessee is guaranteed exclusive possession of the Crown land to be occupied. The lease specifies the intended use of the land and the conditions which both the lessor and lessee have agreed to. In accordance with the Crown Lands and Forest Act, each lease is for a term of ten (10) years, at which time the lease must be renegotiated. In return for the Crown land lease, the lessee pays to DNRE a rental fee based on the market value of the land. The terms and conditions may be amended at any time during the term of the lease, provided both parties agree to the changes. A lease may be assigned to another party, subject to the approval of the Minister of Natural Resources and Energy.

A site development plan describes in detail the intended use of the site, the methods of operation, the planned production levels, maintenance requirements, rehabilitation, and other conditions as agreed upon between DNRE and the applicant. The site development plan forms a part of the lease and any breach of the plan is a breach of the lease.

ADDITIONAL REQUIREMENTS

Navigable Waters Protection Act: Transport Canada (Coast Guard) must approve all structures located in the water to ensure that the public's right to navigation is maintained. All aquatic land lease applications submitted to DNRE are reviewed by Transport Canada.

Canada Fisheries Act: The Federal Department of Fisheries and Oceans has a number of requirements under the Fisheries Act that an applicant requires prior to an aquaculture operation being approved.

SITE SIZE

Salmonid Aquaculture: The current practice of the Province is to approve only sites that will accommodate a 100 ton production annually (i.e. 30,000 new smolt, 60,000 total on site). Originally it was believed that five acres was the appropriate site size. However, due to the Bay of Fundy tides (up to nine metres), and a resulting need for longer and more substantial mooring systems, it is now believed up to 15 acres will be necessary.

Mussels: The current belief in New Brunswick is that a mussel operation must be a minimum of 8 hectares (20 acres) in size to be commercially viable (includes grow-out and spat collection). This acreage requirement may be less in the Bay of Fundy which has a higher productivity potential due to the warm temperatures and high level of water exchange by the tides.

Scallops: The most appropriate site size to support a commercially viable scallop operation has not yet been determined, although it is expected to be in the order of the mussel site size requirement.

FUNDING SUPPORT

Until recently, applicants for salmonid aquaculture have been eligible for funding assistance provided through the New Brunswick Department of Fisheries as part of an agreement with the federal Department of Fisheries and Oceans. This funding program allows for grants of up to $30,000 in the first year, and $70,000 in the second year. Applicants are allowed to operate two cages in the first year, and four cages in the second year (i.e. 2500 smolt per cage).

Funding for shellfish has been limited to a very small number of mussel operations. These test sites will provide needed data on site evaluation criteria and commercial viability.

NUMBER OF SITES ALLOWED

The current practice of DNRE is to allow one site per applicant. Once the first site is fully operational, a second site may be considered for the applicant, based on the site's individual merit. This approach is intended to limit speculation activities.

SEPARATION DISTANCES

Salmonid Aquaculture: The minimum distance maintained between finfish sites is 305 metres (1000 feet). This distances minimizes the possibility of cages colliding, facilitates navigation between sites and reduces the potential for the spread of disease from site to site.

Weirs: Salmonid aquaculture sites will not be approved within 305 metres (1000 feet) of a weir. A greater separation distance may be enforced if it is determined that an aquaculture operation may have an adverse impact on weir catches. The minimum 305 metre separation distance corresponds to the federal Fisheries Act regulations applicable to the minimum distance maintained between weirs.

Mussel Aquaculture - Mussel Aquaculture, Salmonid Aquaculture, Scallop Aquaculture, Weirs: It is believed that mussel operations in close proximity to each other and the other above-noted uses could eventually lead to the fouling (by mussels) of the nets used in these operations. DNRE is further advised that mussels may smother scallops, requiring that a suitable distance be maintained between these two uses. To date, DNRE has not established a specific minimum distance separation between mussel operations and these other uses and each application is evaluated on its own merits. However, the minimum 305 metres (1,000 feet) still applies in each case.

Weir - Weir: Although the licensing of herring weirs is not under the administration and control of DNRE, the minimum distance between weirs, enforced by the federal Department of Fisheries and Oceans via Fisheries Act regulations, has influenced the determination of some of the other minimum separation distances. The Fisheries Act regulations specify that a minimum distance may be increased if it is determined (by a local fisheries officer) that a new weir site could adversely affect the herring catches of the established weir.

Aquaculture Sites - Herring Shut-Off Areas: DNRE's current practice is not to locate any aquaculture site in a area where a viable herring shut-off activity takes place.

PARALYTIC SHELLFISH POISONING (PSP)

DNRE's current practice is not to approve any shellfish aquaculture sites in areas assessed by the Federal Environmental Protection Service as having a high potential for PSP contamination.

ISSUES IN U.S. VIRGIN ISLAND

prepared by Benjamin Nazario
Director, Coastal Zone Management
Department of Conservation and Cultural Affairs
New Brunswick

SPEAKER'S INTRODUCTION

Bejamin Nazario is the director of the division of Coastal Zone Management with the Department of Conservation and Cultural affairs. (The combination of conservation and cultural affairs is an interesting one). This Department is responsible for the administration of public lands in the U.S. Virgin Islands, including permits for construction and development in the coastal zone. Benjamin is a registered engineer, he is a licenced contractor, but he also brings with him the perspective of having been involved in the mariculture business.

SUMMARY

This presentation will present a historical look at land ownership conflicts focusing on the historical rights of the West Indian Company Ltd. These rights pre-date the purchase of the Islands from Denmark.

OUTLINE

Introduction:
- V.I. history; U.S. purchase and treaty with Denmark;
- West India Company Ltd. (WICO) pact with Denmark;
- U.S. Negotiations;
- Trustlands Act of 1979;
- Virgin Islands Coastal Zone Management (VICZM) Act of 1979.

Body: A)
- V.I. Government efforts to accommodate WICO pact;
- Revisions in VICZM Act to accommodate WICO pact;
- Memorandum of Understanding 1 and 2;
- Federal District Court action.

B)
- WICO applies for permit;
- Issuance of permit by DCZM;
- start of work;
- citizens' action;
- Legislature's action;
- WICO reaction.

C)
- Status today.

Conclusion
- What happens now?
  Variables:
  - Court action;
  - Citizens' action;
  - Government action.

The U.S. Virgin Islands is not without any problems in submerged lands. One issue that confronts us is ownership of the submerged lands which presently are in the trust of the Virgin Islands government for the people of the Virgin Islands. Other issues are: beach access, land and water use, zoning, government vs. private use of submerged lands, litigation of submerged lands and wetlands, filled-land uses; and we can go on.

I limited my discussion here to one particular case. It has to do with the ownership of the submerged lands and the use thereof. In 1917 the U.S. purchased the Danish West Indies for $25 million dollars. Through the Treaty of Cecession, the residents of the Virgin Islands at that time became U.S. citizens. The Islands came under the supervision of the U.S. Navy and later under the U.S. Department of Interior. Presently, the territory is self-governing with an elected Governor, a unicameral legislature and a representative to the house of representatives in Washington, D.C. The Federal Submerged Lands Act of 1953 authorized the conveyance to the Virgin Islands by the Secretary of Interior, subject to Congressional Veto. The 1963 Act, while specifying permissible purposes for such conveyance and authorizing the imposition of terms and conditions, was silent concerning the public trust status of the submerged lands. In 1975, however, this was changed in that the 1975 Act conveyed the submerged lands to the V.I. to be administered in trust for the benefit of the people of the Virgin Islands. In 1979 came the enactment of the Coastal Zone Management Act, of which I am the director and administrator.

The case in point now is with regard to certain concessions issued by Christian the tenth king of Denmark after enactment by the Danish Parliament, and upon the recommendation of the Minister of Finance. They awarded an exclusive concession to a consortium of Danish businessmen for the drainage and deepening of an area within the Port of St. Thomas and for various other commercial rights related to the development of commmerce in St. Thomas. The consortium was required to observe rules and regulations of the colonial council in St. Thomas. In October of 1912 the consortium advised the Ministry of Finance that it had raised insufficient funds to carry out all of its obligations under the concession but that it wished to proceed without the concession to complete the first portion of the dredging and the fill work. The following day the Ministry of Finance granted permission to complete the first portion of the work, and the concession itself was relinquished. In January of 1913 the West India Company applied for the transfer of the consortium's rights to dredge and fill. The same year the Ministry of Finance after request by WICO clarified and confirmed certain other provisions of the permit granted as a result of the transfer which were not relevant to the dredging and fill permission granted to WICO.

In 1916 and 1917, you must remember, the U.S. was possibly going to get involved in World War I and was concerned with regards to the waterways through the Panama Canal. That is when the U.S. decided to purchase the Danish West Indies. Used in the Danish text of the Treaty of Cecession was a word, tosogden, which loosely means "promise". In the English translation of the same treaty it is used as "concessions, permits and licenses". In 1916 the Ministry of Finance provided an official Danish government statement that the 1912 concessions were anulled in 1913, that the letter of requests from WICO constituted the full extent of WICO's rights, and that WICO was given no exclusive monopoloy over commercial privileges in St. Thomas. In the U.S.-Denmark proposals and negotiations of the treaty with regards to WICO, the original American text stated that the U.S. would assume and continue to discharge the obligations incumbent upon the Danish government at the date of this treaty under the following grants: the concession of July 7, 1912 for the West India Company Limited relative to the improvements of St. Thomas.

The Danish countered their proposal with the following: the U.S. will maintain the following grants, concessions, and licenses given by the Danish government according to the terms in which they are given: that is, concessions granted to WICO by the communications of the Ministry of Finance of January 18, 1930 and of April 16, 1930 relative to a license to embark, drain, deepen, and utilize certain areas in St. Thomas harbour, and preferential rights to commercial, industrial or shipping establishments in the said harbour. The U.S. agreed to the Danish proposal and it therefore became the official text of the treaty.

In the years 1916 and 1923 WICO undertook some portion of the reclamation work. You have to remember now that the Submerged Lands Act of 1963 authorized the conveyance to the Virgin Islands by the Secretary of the Interior, subject to Congressional veto, of the submerged lands around the Virgin Islands. And this is the lands up to three miles in limit from the high water mark. Assuming the applicability of the public trusts doctrine at the time it was urguable that any restraints on a reconveyance or use imposed by the doctrine could and would be lifted by Congressional participation in the transfer.

A quiet title suit was commenced by the U.S. Government as a result of some areas filled in 1935 and 1963. The extent of the rights was still uncertain. They were the subject of litigation between the U.S., WICO, and certain transferees of WICO. The principal issue of relevance was ownership of the identified submerged lands. The U.S. broadly claimed that any rights of reclamation and use created in WICO by the treaty had lapsed; thus the

U.S. was the unrestricted owner of the contested submerged lands. WICO disputed this and argued that the rights created by the treaty were not time-limited and continued to exist at least until the year 2012, 99 years after their initial creation by the Government of Denmark in 1913.

The trial proceeded by discovery pretrial motions in various attempts to settlement. Just prior to the trial Judge Warren Young, then the presiding judge of the District Court in the Virgin Islands, before whom the case was to be tried, wrote to then Governor Evans suggesting a compromise settlement would be desirable and that the correspondence by the Virgin Islands to the secretary of Interior to this effort would be helpful. The Virgin Islands was not a formal party to the suit but would be the principal beneficiary should the U.S. prevail, again because of the Submerged Lands Act of 1963. Judge Young indicated in his letter that his preliminary evaluation was that WICO would prevail on the merits in the suit. As a result of Judge Young's letter, the Virgin Islands legislature enacted Act 3326 on October, 1972, directing the government to recommend to the U.S. Departments of Interior and Justice "the acceptance and implementation of an offer of settlement and compromise substantially in a form presented by WICO in October and November of 1971".

Judgement was not rendered in the suit. Rather the parties together with the Government of the Virgin Islands entered into a memorandum of understanding in October of 1973. This memorandum incorporated the terms of Act 3326 but was later modified by the first memorandum. The passage of the Submerged Lands Act of 1975 posed a serious obstacle to the enforceability of the memorandum. The memorandum provided the relevant stipulation that WICO would fill and convey some of its claim properties to the Virgin Islands government, could claim other of its concession rights to the U.S., and would have confirmed rights to reclaim and use consistent with the stated zoning in force at the time in other portions of the concession area. Conditions and time limits for action were also provided. Among the conditions that had to be fulfilled were the issuance of an acceptable environmental impact report, and permits from the Corps of Engineers pursuant to the River and Harbour Act of 1899, and the federal Water Pollution Control Act concerning the contemplated dredging and filling. The memorandum recognized that neither the Department of Interior nor the Virgin Islands Government could bind themselves to fulfill various conditions concerning permits, but provided that the parties express their intention to use their best efforts to meet the conditions within the applicable laws. In 1974 WICO applied for an engineering permit. They started to work on the environmental impact report and consequently the closing date provided in the memorandum had not yet occurred and in the absence of some intervening events the time limit of the memorandum had not yet been activated.

The Virgin Islands Coastal Zone Management Act was approved by the Government of the Virgin Islands in 1978. It imposed stringent conditions on the occupancy and the development of Submerged Lands. It is applicable to the areas identified in the memorandum and appears to frustrate the fulfillment of the obligations undertaken by the Virgin Islands in the memorandum, which were:

a) to permit filling by WICO in designated areas in the harbours which it had then owned; and

b) to permit such use of filled areas as was consistent with the zoning provided in the memorandum.

WICO at this inception of the Coastal Zone Management Act then notified the government that its claiming its right under the memorandum had been unlawfully affected by the CZM Act. It asked for amendments to the CZM Act and to the Virgin Islands zoning and subdivision laws exempting from their coverage the lands involved in the memorandum. The Virgin Islands government retained two experts in CZM Law and submerged laws. These experts were also involved in the drafting of the CZM Act.

To reflect a compromise concerning the enactment of the CZM Act and its application to WICO's previously existing concession rights the Virgin Islands Government, WICO, and certain parties entered into a second addendum in September, 1981. The agreement further limited WICO's rights to reclamation which by virtue of the various agreements were reduced from 42 acres to 15 acres. A requirement of the second addendum was that it be ratified and approved by the legislature and also that legislation be added to amend the CZM

Act. This ratification took place in April of 1982. In April of 1984 the district court dismissed the previous action of 1968 for lack of prosecution. This was done by the judge just to clear up its calendar because there were too many cases.

In 1986, WICO started its dredging, when it had all the necessary permits. In 1985 WICO had received its permit from the CZM. As a result of the starting of the dredging the ensuing publicity generated energetic citizen response which in turn generated a Bill in the legislature to repeal WICO's rights in Acts 3326 and 4700. The Bill was approved by the legislature in July of 1986, and vetoed by the governor the same month, and the veto was overridden by the legislature in the following month.

As a result of the repeal of these two acts WICO took the Virgin Islands government to the Federal District Court for a temporary restraining order so that the government could not stop them from dredging. Therefore, because WICO did not have any valid permits to do the work that they had started, the case now stands whereby District Court has decided to reactivate the 1968 action to hear that case based on all its merits. WICO is dredging until it completes the work that it has to do. And hopefully by the end of this year, we will have a decision from the District Court as to the validity of the WICO contract and the legislative action.

ISSUES IN FLORIDA

prepared by James MacFarland
Director, State Land, Department of Natural Resources
Florida

SPEAKER'S INTRODUCTION

James MacFarland has a degree in Economics and is currently the Director of the Division of State Land, Department of Natural Resources in Florida. He is also Manager of the Natural Estuarine Sanctuary Program.

SUMMARY

This paper will present a discussion of the evolution of policy in the last decade focussing on leasing public lands for marina development.

PRESENTATION

I have some good news and some bad news. At the last conference that some of you attended down in Florida the major issue that we had that overshadowed everything else was what we called the Marketable Record Title Act. This was a glitch in Florida Law that had resulted in and was going to result in substantial losses of Submerged lands to private owners. The good news is that the U.S. Supreme Court recently determined that this Marketable Record Title Act could not divest the state of its submerged lands. This was a big victory in that we keep the submerged lands we have had for years. Had it not gone that way the Florida Legislature would undoubtedly have gone the other way. We could hardly find any votes that did not support conveying the submerged lands. The bad news is that there are still a few issues left in Florida for me to talk about.

Resource Protection

What I have heard this morning reflects a little bit about what Florida is doing, although I see a lot of differences too. The primary issue in Florida is economics and critical resource protection. Once the economics are fixed up a little better, I think the resource protection will also be enhanced. To give you a little prespective I going to run very quickly through some Florida history.

In 1845 and 1850 Florida received all its submerged lands in wetlands. What they did from that time period up until the 1960's was to sell off the lands, to dredge, and to fill the lands. In the 1960's the values of wetlands and submerged lands became known to the public and to some of the decision makers. At that time in Florida and most of the United States the wetland destruction and sale slowed down a little bit and in some areas it probably halted. Florida's history of really considering its submerged lands is so recent that I really have to go back to 1981 when a State Land Management Plan was developed. What it said was that submerged lands should be treated as somewhat equal to uplands. In an upland area market the value and the market system is quite well known. Basically Florida said that submerged land has to be treated in a similar manner; and if we are going to lease it to private interests, the state and the public has to derive a reasonable fair rate of return.

Marinas and Docks

In 1983 we did a marina siting study that came up with some other principles. If you are going to lease out lands, non-water-dependent uses are to be discouraged. Water-dependent uses are encouraged. A discount would be given to people who lease state-owned land if it is going to be used by the public. The discount would distinguish between a commercial marina and a condominum dock, for example. Marinas were encouraged to site away from critical habitat areas, where they would not destroy Florida's resources.

The marina sitings study did not come up with a geographical fee structure. It did not develop a differential fee structure although this was requested by the governor and cabinet. The fee structure the study came up with was based on so many cents per square foot. Rather than looking at a economical return of the land, it came up with something that would fund the division of state lands; that was the criterion.

Florida is the only state in which the governor and cabinet (a board consisting of the governor and six other elected state wide officals) make all the decisions concerning acquisition or the disposition of statelands, including leases, for example. The governor and cabinet borrowed an expression from a chain store in Florida called K-Mart, which holds blue-light specials: "K-Mart shoppers, this is a blue-light special--bufferins on sale for .29 cents instead of .59 cents," and everybody runs over to the aspirin counter. Well, that is what the governor called our submerged land lease fees, blue-light specials. And he interested the cabinet directors to come up with something that was more reasonable that also represented a differential--so that Don Johnson on his sailboat down in Miami (Miami Vice) would have to pay a higher lease fee than a little rural area up in north Florida where a guy is eking out a living gathering oysters. That took a long time to come about. Obviously marina owners didn't like it, a lot of the public didn't like it, developers that built condominums with docks didn't like it. It went through about a year of policy discussion and votes and finally they came up with a system so that now that our fee is based on a percentage of the potential gross revenue. That word "potential" means that if you have a slip, we will charge whether that slip is filled out or not. Also they kept the per square foot fee, which right now is about seven cents. The charge will be whichever is higher. We are just in the process of implementing, so don't ask me how it works, because we don't know yet. We are just about to begin the actual charging.

The issue before us this week (it's been going on for probably the last six months) is hopefully the last stage in our submerged land leasing process, whereby the governor and cabinet are trying to lease lands out in a more rational and economic resource-based process. We have discovered that a condominum owner may charge, say, $50,000 a unit, but if he also has a marina and some slips he can and does sell that same condominium unit for $55,000. There is substantial value to a condomium developer in having a marina in front of his property that goes way beyond the normal lease fee that we have charged. So we are now attempting to charge a developer for what we call contributory value, based on whatever value that submerged land lease adds to his ability to sell units. Needless to say, the determining of that value is difficult. We proposed an appraisal process. A lot of people don't like the appraisal process. They accuse us of causing another bureaucracy and keep all the Florida appraisers rich. We have looked at using assessed values, and the assessors say well we can't do parts of this, it is unconstitutional, and you'll need legislation. There are issues there that haven't been ferreted out. Some of the lawyers tell us that it is unconstitutional, it is not equal protection. We want to charge just the condominium owners, not the commercial marinas and not the single family house. As you can well guess, the developers don't like that, and they have a lot of attorneys in the state who don't like it either, so that is where the opposition is coming from.

Geophysical Testing

A related issue other than marinas and docks is geophysical testing. We just set up a fee structure to charge anybody that does geophysical testing, which is now done mostly out in the gulf. We do it on the uplands, across rivers, across lakes and now we are basically out in the waters. We have pretty well got an agreement on what that charge will be. There is just a little bit of dickering around when that first payment is going to be made. They want it much later, after they start work; we want it up front when they get the permission to do it. That will probably be worked out in the very near future.

Aquaculture

I have hear a lot of talk about aquaculture. I think that we are way behind most of the speakers here in terms of the economics of aquaculture. We are in the process of developing a rule to get out of the blue-light specials for aquaculture leases. We basically gave away shellfish leases for oyster growing--perpetual leases for five bucks. We are looking at the legal problems of changing a perpetual lease into something on a shorter term basis but we need to work on that area because they are still almost free. There is a lot of money to be made from oysters and clams in Florida, and that is our primary aquaculture area.

Submerged Land Easement

We have been asked some questions on what is free and what is not free. Florida gives free single family docks. The other thing we give away free--and there is a reason for it--is submerged land easements. When private companies like a oil company want to go across a river, we charge them on the basis of appraised value and it's a pretty heft fee. We get a good rate of return on that. However, when a telephone company or the power company want to go across the same river, that is free. Why is that? Well, so far those companies have been able to get more votes before the governor and cabinet than the staff has. We presented this proposal any number of times and the response is to put it over to the side or take a look at something else. The something else derived out of the last process was to take a look at cable TV companies. They are really not utilities, they are barely regulated, so we are going to try and develop an ability to charge cable TV companies. So that is something we will work on. Submerged land easements are a freebe that is quite valuable to the private sector and yet they basically do not pay anything for it.

Damage to State Lands

Another area we have a problem with is what we call damage to state lands. There is some filling of state lands that still goes on. In Florida it has gone on in the past. We now have legislation whereby if somebody wilfully damages state land through filling or cutting trees we can levy a fine up to $10,000.

The first problem is finding these people. We don't have the staff to do it. And second, you have to prove it is wilful--that they really intended to go out and do damage on purpose. The lawyers will tell you that is really hard to do. We have got just a few cases where the damage was pretty blatant and the owners wanted a lease so badly they paid the fine--they didn't care how much it was.

Ordinary High Water

Related to the issue of damage is that of ordinary high water. We have one case where a guy cut some cypress trees. We said it was on state lands. Our lawyers tell me we need a mean high water survey. Mean high water surveys are impossible to do in a technical sense. The court determines where ordinary high water, is so I've got my lawyers telling me, spend $500,000 to do an ordinary high water survey on these three lakes, and yet the guy cut $6,000 worth of trees and we can fine him $10,000. So, what do we do in that issue? This is going to be very pressing for us.

Resource Protection

Florida is getting site specific in terms of protecting resources that are important. We have a system of about thirty-five aquatic reserves. To get a marina or a dock in an aquatic reserve is more difficult than anywhere else in the state. You cannot put in as many slips as you can elsewhere. There are no docks allowed and there is no dredging allowed in certain areas--for example, in sea grass beds. Another special area with very similar protections is the Florida Keys which have a lot of corals and a lot of sea grass beds. In the Florida Keys you cannot put in a dock unless you have four feet of water at mean low tide to get a boat in. This severely limits the number of docks in the Florida Keys because it is so shallow.

One other issue that we are dealing with and hope to get resolved before our elections in November when we get a new governor, is to set up a ratio of slips, the number of slips you can have depending on the number of condominium units. Our proposal is four to one: if you have four condo units, you can have one slip. There is still some discussion going on, but I think our proposal will go through. There is another ratio which we call forty to one. What that means is that for every linear foot of frontage, you are entitled to so much of a lease area for preemption. So if you have 100 feet of frontage, you get 4,000 feet as a preempted area. This is very restrictive.

User Conflicts

I'll throw out a quick example of a user conflict. We have commercial operations in springs and rivers. Beautiful ladies go diving down as a commercial attraction. We have skin divers and scuba divers that want to use the same area. We are going to have a to deal with that very quickly.

The last thing I will refer to is that our statelands records system is not very good. Basically, for lease payments some of our billing is done vhen someone remembers where the file is. One of the key things we have to do is get our records on a computer so we will know what we own. Today we really don't.

WORKSHOP 2 - VALUATION AND FEE STRUCTURES

1. Open Water Dredge Spoil Disposal (John De Meyer)
2. Pricing and Valuation of Dredgate - (Allen Domaas)
3. Marina Pricing Policy for B.C. Crown Land (Doug McColl)
4. Report on Oregon Rental Rate (Ken Doud)

WORKSHOP 2

VALUATION AND FEE STRUCTURES

Chairperson: Carmelita Olivotto

Carmelita Olivotto is Property Manager for the Harbour and Ports Directorate of Transport Canada. This agency administers leasing and development for all Federal public harbours in B.C., Alberta, Saskatchewan, and the Northwest Territories.

Ms. Olivotto is well qualified for the position with an academic background in Urban Geography and Urban Land Economics. Prior to her present position, Ms. Olivotto worked as a Land Analyst, evaluating highest and best use of federal properties.

DREDGE SPOIL DISPOSAL

prepared by John De Meyer
Manager, Aquatic Lands Division
Department of Natural Resources
Washington

SPEAKER'S INTRODUCTION

John De Meyer is Manager of the Aquatic Lands Division for the Department of Natural Resources in the state of Washington. Since 1960 he has been involved in timber management, forest fire control and commercial leasing of State lands. He also obtained a Bachelor of Science degree in forest management from the University of Idaho.

His paper is "Open Water Dredge Spoil Disposal" and reflects the activities in Washington State.

PRESENTATION

The program agenda describes my presentation as "Open Water Dredge Spoil Disposal". However, in preparing my talk, I realized that it might help to put the issue in perspective by briefly discussing the other means of dredge spoil disposal also.

Dredging is the process of removing material from the bottom of a water body. Spoils are the material removed through the process. If they come from the bed or submerged land beneath navigable waters they are property of the state.

Dredge spoils may be an asset or a liability, depending on how and why they were created.

For example, the material extracted from the bottom of a river as part of a commercial sand and gravel business is considered an asset by the state. On the other hand, material which is deposited suddenly on the bottom of a river from a massive mudslide, flood or volcano, is obviously a liability. Navigational dredging where bottom sediment has accumulated over time could be either, depending on the circumstances.

Normally, when a person wants to use sand or gravel removed from the bed of a river for commercial purposes, the state treats the material as an asset and accommodates these needs through a lease or contract of sale. The rate is based on fair market value of the material. This is determined through public auction or direct negotiation. Negotiated rates use the "income approach" appraisal technique which considers:

(1) Regional wholesale value of the material,

(2) Site specific factors such as homogenity of material, access, and production costs.

The resulting royalty rate is adjusted, annually in the case of 5 year leases, by the change in the producer price index (PPI). The initial royalty rate can also be adjusted downward if it can be proven there is a direct flood control benefit resulting from removal. The current royalty rate is averaging about .40 - .50 per cubic yard and over the long-term we sell about 300,000 cubic yards per year. The majority of this is gravel taken from river bars at low water and is not associated with navigational dredging.

I mentioned volcanos.

The 1980 Mt. St. Helen's volcano created a tremendous problem. Over 1,300 feet of the mountain was blown off in the eruption. A significant part of the mountain top, through the subsequent flood, ended up on state-owned river beds and thus became the property of the state. (The mountain top was privately owned).

Approximately 40 million cubic yards of material found its way into the Cowlitz River. Within one year's time, the Army Corps of Engineers had conducted the largest single dredging project ever. They spent over 300 million dollars restoring navigation and providing flood control protection. Finding disposal sites for all this material was a tremendous problem. The Army Corps and state literally begged local landowners for permission to use their property for disposal sites. In some cases private property was purchased for use as disposal sites. Legislation was enacted which allowed private landowners to sell this material, (RCW 79.90.160), without any charge by the Department of Natural Resources. (Normally, if there is no public site available, navigational spoils can be placed on private land at no charge; however, they cannot be removed without payment to the state).

Volcanos, however, are an extraordinary event and material removed for navigational or harbor improvement purposes is by far our biggest spoil disposal activity. The activity is concentrated on the Columbia River from its mouth upstream to the City of Portland, and the Puget Sound region. Columbia River dredging is almost entirely an Army Corps activity. Disposal is normally upland or near shore. Upland disposal is generally on private land. There is no charge for the material, so long as it remains in place. If the private owner removes any of the material, the state charges FMV for the material. Approximately 4-5 million cubic yards per year is generated. Puget Sound disposal, on the other hand, is practically all open water disposal. I will focus my remaining remarks on this subject.

Puget Sound is home for six major ports involved in international trade. This trade is a cornerstone of our state economy and critical to the flow of imports and exports on a national basis.

Open water disposal of spoils for navigational purposes in Puget Sound is increasing. Larger ships require deeper channels and more depth at berths. More importantly, however, is the unavailability of upland or nearshore areas used extensively in the past. The past 15-year average is 730,000 cubic yards/year. The past 5-year average is nearly double that @ 1,500,000 cubic yards/year. We expect this level to continue into the future. These dredge spoils, often contaminated, are a liability rather than an asset.

The private sector (marinas, shipyards, etc.) accounts for 60+% of the volume, followed by the Army Corps of Engineers and port districts.

Beginning in the 1970's the Department of Natural Resources became actively involved in designating and managing open water disposal sites. Increasing demand for disposal areas, environmental awareness, and potential conflicts wit other resource uses, precipitated our involvement.

The department locates and designates suitable sites in cooperation with federal and state environmental agencies. The disposal sites are available for all users, provided their material is environmentally suitable for deposition in a water environment. A permit rather than a lease is the vehicle authorizing use of the site. This is because (among other things), we have multiple users using the site with no one party having exclusive rights. The permit fee includes a nominal charge for use of the submerged land plus an additional charge to cover administrative costs. The latter is by far the larger of the two.

A major problem in determining the administrative fee is seeking an equitable balance requiring all users to pay a fair share of the fixed costs (permits acquisition) common to all sites and the variable cost associated with project size (monitoring).

The current fee schedule, as adjusted in 1985, is:

Lease fee $100.00
Administrative cost -
  First 200,000 yards - $.15/cubic yard
  Excess 200,000 yards - negotiated
  Minimum total - $2,000.00 (method of spreading fixed costs to all users.

Beginning next year fees are expected to increase dramatically, as a result of the current Puget Sound dredged disposal analysis (PSDDA) being conducted by Federal and State agencies (COE, PEA, DNNR, and DOE) for the Puget

Sound region. This three-year, 3 million dollar planning project, was conceived as a result of increased public interest and concern over dredge spoils as they affect water quality and other elements of the environment. The goal of the project is to locate sites that are environmentally suitable for open water disposal of "clean" dredged spoils. The project is a spin-off of the Chesapeake Bay project and focus on sediment quality, in addition to water quality. The definition of "clean" is being debated at this very time. There are four categories being considered.

I - No toxic chemical effects to sediment biota
II - Some toxic but non-lethal effects
III - Toxic lethal effects
IV - "Hazardous" or "Dangerous" waste.

Regardless of the category chosen, future permit compliance and ongoing environmental monitoring costs of the sites will be borne by the user. I expect these costs to range between $.65 - $1.25 per cubic yard.

SUMMARY

Dredge spoils are considered the property of the state regardless of how they are generated.

Spoils that make their way into the commercial market place are charged fair market value. Currently we charge on the average of about $.40 cents per cubic yard.

Dredge spills resulting from navigational dredging average about 4.5 million cubic yards per year. However, it is the 1.5 million cubic yards generated in the Puget Sound Region that involve open water disposal.

Open water disposal fees in the Puget Sound region are currently about $.15 per cubic yards. These are expected to increase dramatically ($.65 - $1.25 per cubic yard) as a result of the PSDDA project.

PRICING AND VALUATION OF DREDGATE
A PORT'S PERSPECTIVE

prepared by Captain Allen Domaas
Fraser River Harbour Commission

SPEAKER'S INTRODUCTION

Allen Domaas is working for the Fraser River Harbour Commission as Property Supervisor. He represents the Commission on several working groups including the Fraser River Estuary Management Program and the Marine Traffic Advisory Council.

Allen is presently working on a Bachelor of Business Administration at Simon Fraser University.

Allen will present "Pricing and Valuation of Dredgate" reflecting the procedures in use on the Fraser River, in Vancouver.

OBJECTIVES

1. Distinguish between saleable and unsaleable dredgate
   a) mill pocket dredgate - no charge (unless taken off site)
   b) low quality dredgate - negotiate
   c) good quality dredgate - full royalty

2. History of dredgate price - Fraser River Harbour Commission
   1964 - cost $.05/yd. to have removed
   1986 - receive $.40/yd.

3. Explanation of low price was increased
   - take over sand disposal from Public Works Canada
   - provide alternative disposal site
   - limit borrow areas

4. Conclusion

"If you have something, make someone else want it before you sell it".

Background

Fraser Port is a river port administered by the Fraser River Harbour Commission. The port consists of 136 miles of shoreline providing 12 deep sea berths. These berths received 525 ships in the year 1985, generating 2.5 million tons of cargo. As well, the harbour is extensively used by the coastal fleet which range from ocean-going tugs and barges to gillnet fishboats. Each year, the spring run-off deposits over 5 million cubic yards of sediment in the harbour. The current goal in the port is to achieve a 35 foot draught from the mouth of the river to Fraser Surrey Docks.

Definitions

For the purpose of this paper, the following definitions will apply:

Pricing:	setting the amount of money given or set as a consideration for the sale of dredgate from the bed of the river (i.e. the royalty)
Valuation:	the process of determining the worth of dredgate by applying a price to a given quantity
Dredgate:	material produced by the mechanical removal of river bottom (often called spoil)

Dredgate

Prior to discussing the place of pricing and valuation in the sand market, it will be helpful to examine dredgate and focus on saleable material.

Dredgate, by our definition, can range from bark and wood-contaminated mud, from a mill pocket to rock cobble.

Within Fraser Port, no royalty is charged for low quality spoil such as mill pocket cleanings. This material impedes the efficient use of the harbour and can limit the success of water-oriented industry. It is seldom taken ashore as a landfill material and is usually dumped at sea. As there is little chance of finding a buyer for this material, it is pointless to discuss a royalty rate.

A second material which causes problems in the orderly sale of sand is mud. Dredged sand with a high mud content is a difficult product to market. It is difficult to contain within a spoil site and it has a very long dewatering period compared to sand. When wetted, it becomes unstable, and therefore does not make a good backfill material. In situations involving this material, negotiations are often required to arrive at a reduction in the royalty to make the dredgate saleable. Fortunately, this material usually only appears in side channels and areas with slow water velocities, therefore, the quantities are relatively small.

To keep the topic manageable, this paper will deal only with dredgate of good quality generated by maintenance and borrow dredging.

Maintenance is the dredging done by Canadian Coast Guard under their mandate for navigable channels.

Borrowing is the dredging done by private contractors under a licence granted by the Fraser River Harbour Commission. This dredging is usually done to fulfill a contract to supply sand at a tendered price. Typically this would be for a construction site pre-load or backfill. Dredgate in the Lower Fraser River is not suitable for most industrial processes, i.e. concrete, blacktop, etc. One use recently discovered is as a filler in Roller Compacted Concrete.

Borrow dredging can complement maintenance dredging in developing the navigable channel if the borrow sites are carefully issued. This will be discussed later in the paper.

Borrow sites are now allocated within the navigation channel to obtain the maximum benefit of material removed for the good of the port. This action also allows Coast Guard to make most efficient use of Public Works dredging equipment to fulfill their mandate of channel maintenance.

The Dredgate Market

The sand market in the Lower Fraser functions with dregate sellers competing with upland sand sellers. Changes in price cause purchasers to substitute into the competing product.

A study by the Province of British Columbia found that the price elasticity for sand in the lower Fraser is zero within a wide price range. Purchasers will not buy more because the price is low, nor will they buy less if the price is high.

This inelasticity is due to the limited uses for dredgate and the low profit margins for operators.

Dredgate is either purchased directly as a wet preload or by sand pit operators for resale. Sand pit operators tend not to develop inventories unless they have a pre-determined market.

Factors Determining Price of Sand

The hesitance to stockpile dredgate is a function of the low profit margin. In the Lower Fraser, a typical operator's profit margin is 20¢ per y^3. This narrow profit margin does not permit high carrying costs.

Most sand pit operators purchase dredgate with a line of credit from a financial institution. The following example highlights the impact of interest charges.

Example: Operator wishes to acquire 200,000 y^3 of dredgate. Cost of dredging contract is \$1.70 per y^3. Interest rate is 12%.

Costs: Royalty - 40¢/y^3 x 200,000 y^3 = \$ 80,000
Dredging - \$1.70/y^3 x 200,000 y^3 = \$ 340,000
Total - \$2.10/y^3 = \$ 420,000

Possible Profit: 20¢/y^3 x 200,000 y^3 = \$ 40,000
Price prior to loading: \$2.30/y^3
Interest: At 12% interest accrues at (1% x \$420,000) = \$4,200/month

From the above, it is obvious if all dredgate is not sold in less than nine months, no profit will remain.

Using the \$2.30/y^3 generated above as the price prior to loading and assuming a cost of \$.70/y^3 as a cost of loading, the F.O.B. (Free on Board) price at the sand pit is \$3.00/y^3.

The upland sand suppliers have F.O.B. sand pit prices from \$2.50/y^3 to \$5.00/y^3, therefore, it is clear the dredgate suppliers can compete. Other factors which may affect the price are the purchasers land costs, taxes and dredging costs.

The factor which often determines whose sand is purchased is usually the cost of trucking. As this variable is a function of purchase location and not under the control of the regulatory body or the sand pit operator, it will not be discussed.

Pricing

To this point, an attempt has been made to describe the sand market and how it evolved. It should be obvious that a number of factors beyond revenue generation must be considered when setting a royalty rate. The rate should generate as much revenue as possible, but in the case of a port where the dredging has navigational benefits, it must be low enough to encourage the purchaser to compete with the upland operators, thereby continue to remove the material. While the upland pits have other factors that dictate their price, the dredgate sellers F.O.B. price and the pit must be competitive. The royalty rate, as it is often larger than the profit margin, can be a critical factor in keeping dredgate competitive with upland sand. A royalty rate should be a fixed amount for a long enough period of time to allow the market to absorb the impact of a change. The dredgate purchaser should be able to asume royalty is a fixed cost and use his profit margin or his sand pit location to garner his market edge.

A fluctuating royalty rate over a short period of time could wreak havoc in the sand market. It is clear that is one purchaser paid 50¢ per y^3 for material and a subsequent purchaser paid 25¢ per y^3, the second party has a greatly increased competitive edge. Conversely, if the rate rose sharply in a short period, the earlier purchasers would be virtually guaranteed sales until their inventories were consumed.

Valuation

Using our definition of valuation from the start of the paper, it is critical to determine the exact volume of material delivered. The Fraser River Harbour Commission demands the use of a qualified B.C. Land Surveyor to carry out these calculations. Note the use of volume above. The royalty rate at Fraser Port is established per cubic yard, rather than by ton. This negates any argument as to the density of the material delivered and makes for simple measurement.

The Commission requires a pre-pump survey of the spoil area, the placement of settlement gauges if the site has not been loaded previously and a post-pump survey to ensure a complete and accurate calculation.

A pre-pump survey is required to establish the baseline on which the final survey depends.

The settlement gauges are required to ensure full measure of all material placed. For example, if a spoil area of 5 acres (24,200 square yards) settled one foot below the pre-pump survey base line, the purchaser would obtain 8,066 y^3 of fill for free. At \$.40 per y^3, this amounts to \$3,426 of lost revenue. The filled land's market value would have been increased at no cost to the owner and the dredging company delivering the material would have delivered the material at no cost.

Assuming only 6 dredging licenses for 200,000 y^3 are issued a year, an agency could lose \$20,000 revenue. To put the foregoing in perspective, the Fraser River Harbour Commission has issued dredging licences totalling an average of 3.2 million y^3/year for the last 10 years.

To ensure complete measurement, it is advisable not to permit the contractor to remove any material from the site prior to the completion of volume calculation.

While the purchaser may see the conditions discussed in this section as onerous, it must be borne in mind that each yard of dredgate lost represents revenue lost.

Positive Signs

A positive sign of health in the dredgate market is the changing of storage fees to users of commission sand pits. In the last three years sand sold from commission pits have included a 17¢/y^3 levy for sand storage.

Conclusion

From the foregoing, it is clear that pricing and valuation are not processes to be determined in a vacuum.

The price level (royalty rate) must be set to maximize revenue to the governing body but not to the extent that destroys the market for dredgate.

Competition from upland pits is a critical fact and care must be taken to limit substitution into a competing product.

The F.O.B. prices of dredgate and upland sand must be reasonably close as it is usually the trucking or delivery costs that make or break a price. The trucking distance is a variable over which an administrator has no control.

The valuation of the delivered spoil can only be determined by the use of the most up-to-date volume measurement possible. It is important to remember that the quantities discussed here, when placed on the soft soils of an estaurine environment, can cause settlement which must be accounted for in the final volume calculation.

At Fraser Port, through the thoughtful placement of borrow areas, the port has had the benefit of channel dredging while supplying dredgate to the market place. The issuance of a dredging licence specifying the location and cut depth of the borrow ensures dredging to channel standards.

By setting the royalty at a level which allows dredgate to compete in the market place, entrepreneurs are willing to purchase dredgate from the Commission on a regular basis.

In summary then, while pricing and valuaiton are important, they are not the whole story.

MARINA PRICING POLICY FOR B.C. CROWN LANDS

prepared by Doug McColl
Regional Director
Ministry of Forests and Lands
British Columbia

SPEAKER'S INTRODUCTION

Doug McColl is the Regional Director for the Vancouver Island Region of B.C. Lands. Doug is originally from Alberta where he attended the University of Alberta and Olds Agricultural College.

He moved to B.C. in 1975 to take a position in The Department of Housing. This later merged with Lands, and Doug assumed his current position in Victoria.

SUMMARY

Our present marina and yacht club moorage policy was developed as a result of a series of meetings between members of the Industry and Ministry staff. This pricing review was in keeping with the Ministry's general thrust to involve the users of Crown land in policy decisions which affect the private sector role in supporting economic development in the Province.

Crown land for general commercial use is generally disposed by way of direct sale, lease or license. The fee simple dispositions are valued and sold at prevailing market value, while rental by lease or license is based on a consideration of use category, appraised land value for taxation purposes, and potential gross income for all tenures. The minimum annual rental is $200. The following categories apply to all commercial Crown land use.

Type A commercial use involves selling, storing or servicing of goods usually in urban or developed areas and operating on a year-round basis.

Lease and license rental rates are 8% and 7.5% respectively of the B.C. Assessment Authority actual land value for taxation purposes.

Type B commercial use involves the provision of services in rural or remote areas on a seasonal basis. Lease and license rental fees are 5% and 4.5% respectively of the B.C.A.A. actual land value.

To further assist the development of a new marina or the expansion of an existing facility, the Ministry offers a general license for investigative purposes, for a one-year term. This allows the developer to investigate the site, secure approvals from other jurisdictions and prepare the development plan. A fee of $100.00 is charged for this license, and standard administrative costs are applied.

Aquatic landfill sites are valued at 100 percent of the appraised upland market value as established by the Ministry. Where special costs are incurred to create the fill, discounts of up to 50% of the appraised value may be given for a period of ten years. The percent rate is that quoted above for moorage for Type A and B uses.

Moorage tenure rental is determined by a percentage of the potential gross income from moorage.

The potential gross income is an estimated total potential income from boat moorage which a marina could receive. For the first 15 years the rental rate is 3.5%, and thereafter to year 30 it is 4%.

The total rental for a marina could then be the sum of moorage rate, non-moorage rate (Type A or B) and aquatic fill rate.

This pricing policy is complicated, but has worked satisfactorily during the past year.

PRESENTATION

Our present marina and yacht club moorage policy was developed as a result of a series of meetings between members of the industry and ministry staff. The meetings were concluded in early 1985. The policy and pricing governing marinas was effective April 1, 1985.

A primary reason to review the pricing policy was that the high price of upland in urban centres (when used as the valuation for filled foreshore vis-a-vis marina) placed a hardship on the marina operators.

This pricing review was in keeping with the Ministry's general thrust to involve the users of Crown land in policy decisions which affect the private sector role in stimulating economic development in the province.

The private sector is expected to play the lead role in providing the upland for marina enterprises, supplemented by the provision of aquatic lands by the Crown.

The pricing policy can be divided into two main categories:

1. General commercial uses of Crown land such as aquatic lands;
2. Policy specific for marina and yacht club tenures.

The general commercial use portion of the policy requires that upland or filled foreshore areas be treated in a similar manner to any other commercial uses. Disposition of land may be by way of sale, lease or license. Pricing would be normal compared to other commercial lands, for example, for fee simple or sale at market value:

Rental Type A (Commodity-oriented) Commercial -

- Lease 8% of B.C.A.A. Actual Value
- License 7.5% of B.C.A.A. Actual Value

Rental Type B (Service-Oriented) Commercial -

- Lease 5% of B.C.A.A. Actual Value
- License 4.5% of B.C.A.A Actual Value

For all tenures, the minimum rental is $200.00 per annum.

Type A Commercial Use - Involves selling, storage or servicing of goods and commodities usually located in urban or developed areas operating on a year-round basis.

Type B Comercial Use - Involves the provision of services usually located in rural or remote areas generally operating on a seasonal basis.

To futher assist the development of a new marina or the expansion of an existing facility, the Ministry offers a general license, often referred to as a Section 10 License, for a one-year term. This is generally issued for a short term period, allowing the developer to investigate the site, secure approvals from other agencies, prepare the development plan, etc.

A fee of $100.00 is charged for a general license in addition to the standard $25.00 application fee and $25.00 for documentation.

Valuation of Aquatic Land Tenures

1. A. Unauthorized fill that is being legalized or B. Pre-authorized fill created from adjacent aquatic lands, i.e. dredging, and C. filled areas in place for greater than ten years are valued at 100 percent of the upland value.

2. Where special costs are incurred to create an authorized fill, discounts of up to 50% of the appraised market value may be given for up to a period of ten years.

Development Plan

A development plan is required to accompany all applications, indicating the improvements and timing of construction. The application must comply with zoning, building, and health requirements of the appropriate agencies.

Any tenure located above or contiguous to mean ordinary low water line must obtain the consent of the upland owner for the proposed use and term of the tenure. This general policy is summarized in Table 2.

Riparian Rights

Our rule of thumb is that improvements must allow the upland owner to navigate a boat of reasonable size (say 40 feet) from every point along his shoreline to the adjacent low water tide in order to avoid interference with the riparian right of deep water access.

Before moving to the specific marina and yacht club pricing policies, let's recap the general commercial use parameters for aquatic lands.

TABLE 1

GENERAL POLICY - COMMERCIAL USES

A. Fee Simple (Sale)	Market Value
B. Lease - Type A	8% of Actual Value
- Type B	5% of Actual Value
C. License - Type A	7.5% of Actual Value
- Type B	4.5% of Actual Value
D. General License (Section 10)	$100.00
E. Application & Documentation Fees	$50.00 - $125.00
F. Filled Aquatic Lands	
(1) unauthorized/Legalized)	
(2) created by Dredging)	
(3) in place 10 years or more)	MARKET VALUE
(4) off-site fill material	UP TO 50% OF MARKET VALUE DISCOUNT
G. Development plan required in all cases.	

For the purposes of our approach to policy, yacht clubs are considered to be the same as a commercial marina. As you will see, this may cause difficulty and requires judgment in determining a fair valuation for yacht club facilities.

Yacht clubs very often assess their membership an annual membership fee which may include, in addition to moorage, charges for special facilities, social events, racing prizes, etc.

Although marinas generally charge moorage based upon a per-foot rate, this may not be the case with yacht clubs. Therefore, we may use comparables with the nearest marina facilities; or an average based on several nearby marinas; or a judgment as to the potential gross income as if the yacht club in question were operated as a commercial marina.

Keeping this in mind, I will attempt to deal only with the pricing policy relative to commercial marinas.

Application

1. The marina developer may apply for a general license for up to one year order to obtain approval in principle from other agencies.

2. Upon receipt of approvals and preparation of a development plan, a lease or license may be applied for. The development may be set out in phases.

3. Lease tenures will be issued for up to 30 years upon initiation of the marina operation.

Moorage and Ancillary Uses

The moorage tenure rental, is established as a percentage of the potential gross income from moorage.

Ancillary uses normal to a marina operation are those which are located on the docks, consisting of such things as gas docks, boat houses, launching ramps, sales docks, etc.

ANCILLARY USES (MARINAS)*

1. Boathouses
2. Gas docks
3. Marine ways (portion submerged at mean high tide)
4. Fuel docks
5. Launching ramps (portion submerged at mean high tide)
6. Boat sales/dock
7. Boat rentals/dock
8. Boat charters/dock

The lineal footage of the above facilities will be calculated and added to the total lineal footage for moorage for purposes of calculating the annual potential gross income from moorage.

* Applies to areas below the mean high water mark and not on fill.

The formula established is called "Potential Gross Income From Moorage." This is the total potential income from boat moorage which a marina operation could receive in any given year. The formula is calculated as follows:

Potential Gross Income = (1.) (No. of lineal feet of moorage charged at a month-to-month open moorage rate X month-to-month rate) + (2.) (no. of lineal feet of moorage charged at monthly open moorage rate based on prepaid, annual, non-discounted payment X monthly rate) X (3.) (no. of operational months.

Total Moorage Available

The aquatic land portion of the marina tenure rental is determined as follows:

3.5 % of Potential Gross Income for first 15 years.

4% of Potential Gross Income for years 16 to 30.

Let me illustrate how the pricing is determined given various examples:

1. Marina with fill (no dredging) (off-site fill), breakwater;

2. Marina with fill from dredge, fully developed breakwater;

3. Marina with fill and dredge, partially developed breakwater (phased or stated).

Non-moorage rental is dependent upon the classification type (A or B commercial use). Lease rent is subject to review every five years.

Aquatic land filled areas may be disposed of in fee simple (sale). Maximum discount is up to 50%. Existing fill areas are in place at effective date of policy. Payment may be in four equal annual installments.

Marinas must report by annual statutory declaration their:

1. Monthly moorage rates & per foot rate;
2. Lineal footage;
3. Number of months open for business;
4. List of ancillary uses;
5. Level of business operation during period of closure.

The total rental for marinas is the combined rental from moorage and ancillary uses and the non-moorage use areas.

I trust that I have been able to briefly explain our marina and yacht club aquatic land rental and/or sale policy. It tends to appear somewhat complicated but after being in use for approximately a year, seems to be working to the satisfaction of everyone.

I thank you for your patience. I will be glad to answer any questions that you may have.

TABLE 2: POLICY SUMMARY
GENERAL COMMERCIAL (UPLAND AND AQUATIC) LAND USE

TENURE	TERM	VALUATION	PRICING	METHOD OF DISPOSITION
Fee Simple	Perpetuity	Appraised market value	Full market value in advance (Fill may be discounted by up to 50% for marina tenures)	Public tender or by application in rural and remote locations
Lease (General)	30 years	50% - 100% of upland property value	Annual rental of 8% (Type A) and 5% (Type B) of land value	Application
Lease (Marinas)	30 years	Non-moorage foreshore and fill appraised by Ministry	Annual rental of 3.5% of potential gross income for years 1-15 and 4% thereafter (moorage) 8% or 5% of land value (non-moorage) $200 minimum	Application
Licence of Occupation	10 years	As above	Annual rental of 7.5% (Type A) and 4.5% (Type B) of land value	Application
Licence of Occupation (Film Production)	1 year	N/A	$500/yr or portion thereof	Application
Licence of Occupation (Marinas)	10 years	Non-moorage foreshore and fill appraised by	Annual rental of 50% of 3.5% of potential gross income (moorage) 7.5% or 4.5% of land value (non-moorage) $200/yr minimum	Application
General (Section 10)	Maximum term 6 months for authorized use; 1 year for investigative purposes	N/A	$100 fee in addition to standard application fee ($25) and documentation fee ($25)	Application

REVIEW OF OREGON'S 1983
"ECONOMIC ANALYSIS OF LEASE RATES"

prepared by Ken Doud
Supervisor of Waterway Leasing
Division of State Lands
Oregon

SPEAKER'S INTRODUCTION

Ken has been a Certified Property Appraiser since 1972. He has worked for the state of Oregon as an appraiser and as a Right-of-Way Agent prior to his present appointment as supervisor of Waterway Leasing for the Oregon Division of State Lands.

Ken has a Bachelor of Science degree from Oregon State University.

SUMMARY

In 1983 the Oregon Division of State Lands commissioned a study to examine the structure and levels of lease rates for the submerged and submersible lands owned and managed by the state of Oregon. The study was also to develop proposals for lease rates which would serve the public interest, promote economic efficiency, and be equitable for those who lease these lands for economic uses.

The project team profiled the existing leases by major usage category and location and developed methods and procedures to estimate the economic values of the submerged and submersible lands. The major use categories were marinas and moorages, commercial and industrial activities, and log raft mooring and storage. For each of these categories, selected methods were used to estimate the economic value of submerged land.

The analysis of lease rate structures led to the conclusion that establishing lease rates on a per acre basis is preferable in terms of both economic efficiency and equity considerations. Accordingly, the economic values for leased lands were determined by estimating the annualized value of the land in each usage category, expressed on a per acre basis. These annualized values became the point of departure for determining the recommended lease rates.

An important principle adopted in developing the lease rates was the use of standardized rates for each usage category. However, efficiency and equity considerations dictated some flexibility in this approach. For instances, zoning and permit restrictions made it important to distinquish between lease rates for marinas and for houseboat moorages. Different vacancy rates, adjustments for weather conditions, and the high variability of dredging costs from one marina to another were to be taken into account. For log raft moorage, lease rates were to be adjusted downward in areas suitable only for storing flat log rafts.

In moving from demand value estimates (or rental earnings) to recommend lease rates, these factors were included in the rate computations. The resulting lease rate proposals were more complex than a single, standardized rate, but were still considered administratively feasible. Moreover, they would provide a greater degree of economic equity than would result from a completely standardized per-acre rate for each parcel of land.

In addition to proposing a flexible rate structure, it was recommended that the new rates be phased in over a five-year period (beginning with the date of approval). This was to reduce any disruption or dislocation arising from implementation of new rates.

Some dislocation was expected from the proposed rate increase, although it was anticipated that the adverse economic impacts would be limited. Some leases for log raft storage sites were expected to be dropped as a move toward consolidation, and as a part of an ongoing process of improving the efficiency of inventory management policies. Similarly, some marinas were expected to discontinue operations while others economized on their use of submerged lands. The method for estimating demand value was designed to provide more than a competitive rate of return for efficiently managed marinas. Thus, little adverse impact on total marina activity was anticipated as a result of the proposed changes.

One important consideration, obviously, was the projected impact of the proposed rate structure and lease rates on revenue raised for the state. With only limited increases in administrative costs arising from the proposed changes, most of the increased lease revenues would represent a net addition to income. This would be an important public benefit, although the primary objectives were to promote efficient and equitable management of state-owned submerged and submersible lands.

Finally, a brief comment on the merging of economic analysis with political or public policy judgments is warranted. The study focused primarily on questions of land value and concerns of economic efficiency. State support which allows local public authorities to provide facilities at reduced rates makes it difficult for private operators to compete effectively. In a similar fashion, the importance of consistency among lease rate policies adopted by neighboring states must be recognized.

PRESENTATION

It has been three years since Oregon has taken part in the Submerged Lands Conference. I would like to give you some very brief information on the Division of State Lands, the agency that manages the submerged and submersible lands in the State of Oregon. The Division of State Lands is the working arm of the State Land Board. That is a three member board comprised of the State Governor, the Secretary of State and the State Treasurer--the top elected officials in the state. So we are very much politically influenced as are many of our programs. The Division of State Lands is not a super-resource agency. In the State of Oregon there are many resource agencies that own land and manage those lands. Consequently what the Division of State Lands has to manage are the common school grant lands or what is left of those and the submerged and submersible lands in the state.

The main topic of my comments this afternoon is a 1983 study that was commissioned by the Division of State Lands, to analyse, study, and make recommendations on rental rates for the submerged and submersible lands. It was a very extensive study. I think it is pertinent to note that the study was conducted by economists, with appraisal input. Some of the approaches that they came up with are a little different than some of us who have appraisal backgrounds are used to dealing with.

Initially the project team profiled the existing leases that the Division of State Lands had. They developed methods and procedures to estimate the economic values of the submerged and submersible lands. They called those values demand values; they based them on use. Personally, I think the concept of demand values is very important. Often we are called upon to appraise the market value of submerged lands, though there is no market: these lands are not bought and sold. Consequently it is very difficult for appraisers at times even to accept the concept that they can establish the market value.

The demand values that were established in this study, in appraisal terms, are more akin to values in use. That is a very significant concept, one we can perhaps build upon and make use of. Though the lands may not really have a market value, they do really have a value in use. If we can identify that, it can be very useful in establishing a rental rate. That's what they did in the study. They broke the useage of the submerged and submersible lands in the State of Oregon down into the three major categories: areas that are leased for log raft storage and booming sites; marinas and moorages; and what we call extensions of upland use (that would include motels, condominums, restaurants, most any industrial and commercial use that extends out over the state-owned submerged land). They developed their demand values for the submerged land by using basic appraisal approaches. For the log raft areas they used principally a substitution approach based on costs of storage sites on uplands. For the marinas and moorages, they used an income approach whereby they took the potential gross income of a developed marina, backed out the development costs, came up with a residual value attributed to land, and thereby had their demand value. Ultimately, they converted all of these demand values into what they called an annualized value. That would equate, in apprisal terms, to a gross rent potential of the area on an annual basis according to the specified use. On the extensions of upland use, those that conducted the study, I feel, shied away from standard appraisal approaches and concluded that those sites really did not subject themselves to a standard model, which was what they were developing for the other uses. They determined that the extensions of upland use sites should be appraised on an individual site basis. They went further to conclude that the value of a submerged lands site that was an extension of an upland use should not necessarily be tied to the adjacent upland value. In other words, the approach that a lot of us normally fall back on by saying that the submerged lands are worth a specified percent of the adjacent upland values, they downplayed considerably in this particular study.

The rates that they ended up recommending were clearly much higher than the rates that we were charging at the time the study was conducted. Consequently they recommended a five year phase-in period. The details of that are in the study. I think it is an excellent approach. It is an approach that the State of Oregon had applied originally when we entered into some of our leases for areas that had been used for a number of years but had never been under lease. They were recommending a continuation of the phase-in program because of a very substantial increase in rates.

I think, in order to leave time for questions, I will get right to the epilogue of the study. This is where it gets interesting. It is not a success story. From my personal point of view it is a horror story. We obviously had rental rates in place at the time the study was conducted in 1983. Based on the recommendations of the study, our agency went through the Oregon administrative rule revisions process to revise our rates. Our initial recommendation was the proposals of the study itself.

I will give you a brief summary of the rates prior to the study, the rates recommended by the study, and the rates after our 1984 rule revision. Our rental rates are set and established by these Oregon administrative rules, which have the effect of law.

Log Raft Storage

Before the study the rates for log raft storage sites were $150 for the first acre and $90 for each additional acre. The study recommended based on its model analysis that the rates should average $500 per acre for a site that was suitable for bundled rafts, $200 per acre for sites that were only suitable for flat rafts. After the 1984 rule of revision, and presently, our rules provide for $200 for the first acre and $120 for each additional acre, irrespective of whether the site is suitable for bundled or flat rafts.

Marinas and Moorages

Our marina and moorage rate prior to the revision included both sporting-craft marinas and houseboat moorages and it still does, following the 1984 rule revisions. Prior to the study our rate was three percent of the potential gross income of the facility. That averaged overall approximately $350 per acre per year. The study concluded and recommended that, on the average, submerged land leased for inland marina purposes (and this is sport boat marinas--to be differentiated later from houseboat moorages) should rent for $3,500 per acre per year. Coastal marinas (this is the rent on the submerged land only) should rent for $2,400 per acre per year.

Houseboat Moorages

According to the study, the submerged land should rent for an average of $8,000 per acre per year. Following the 1984 rule revision process our rates for all marinas and moorages is $400 for the first acre and $240 for each additional acre. We do have a minimum $400 rental for this type of lease. The upshot of this revision is that the small users, the individual houseboat owners, or boathouse owners had their rents increased from $150 minimum to a 400 minimum. The large marinas and the large houseboat moorage lessees had their annual rental rates reduced significantly.

Extension of Upland Uses

Prior to the study our rental rates were based on six per cent of the adjacent upland value. That was set in our rules. I realize that many of your jurisdictions base rental rates on the value of the submerged land. I think in the State of Oregon if we were to equate the six percent of adjacent upland value to a rental rate based on the value of the submerged land it would be something like this. In the State of Oregon a market return on a value of land presently is approximately 10 percent. Utilizing that factor our rental rate formula of six percent of the adjacent upland value is saying that the submerged lands are worth approximately 60 percent of the adjacent upland, were we to equate it in that way. The recommendation of the study was that the rental rate for the extension of upland uses stay the same. Fortunately for us, after the 1984 revision of our rules the rental rate did stay the same six percent of adjacent upland values.

Exceptions

Very briefly, aquaculture uses, any special uses, any hardships that are provided for by our rules, any use which includes unit ownership (which would include utilization of submerged lands for condominiums, or dockominums) are set by division appraisal. And I can tell you that the rental rates for any of those uses that are set by division appraisal are very substantially higher than these other rates that are specified in our administrative rules.

Copies of the economic analysis of lease rates, that was prepared for the Division of State Lands, are at the back of the room. Because of the results of our rate revision process the director of my agency asked (I think he felt that this may be the only chance that we have to recoupe our costs for the study)--he asked that for each copy of the study that is picked up today, I charge a nominal handling fee of $2,500 per copy. I usually do what he says, but given that we are all in the same business, grab a copy. Buy me a beer. We'll call it even.

5th ANNUAL SUBMERGED LANDS CONFERENCE

VICTORIA WATERFRONT TOUR

Monday, October 6, 1986

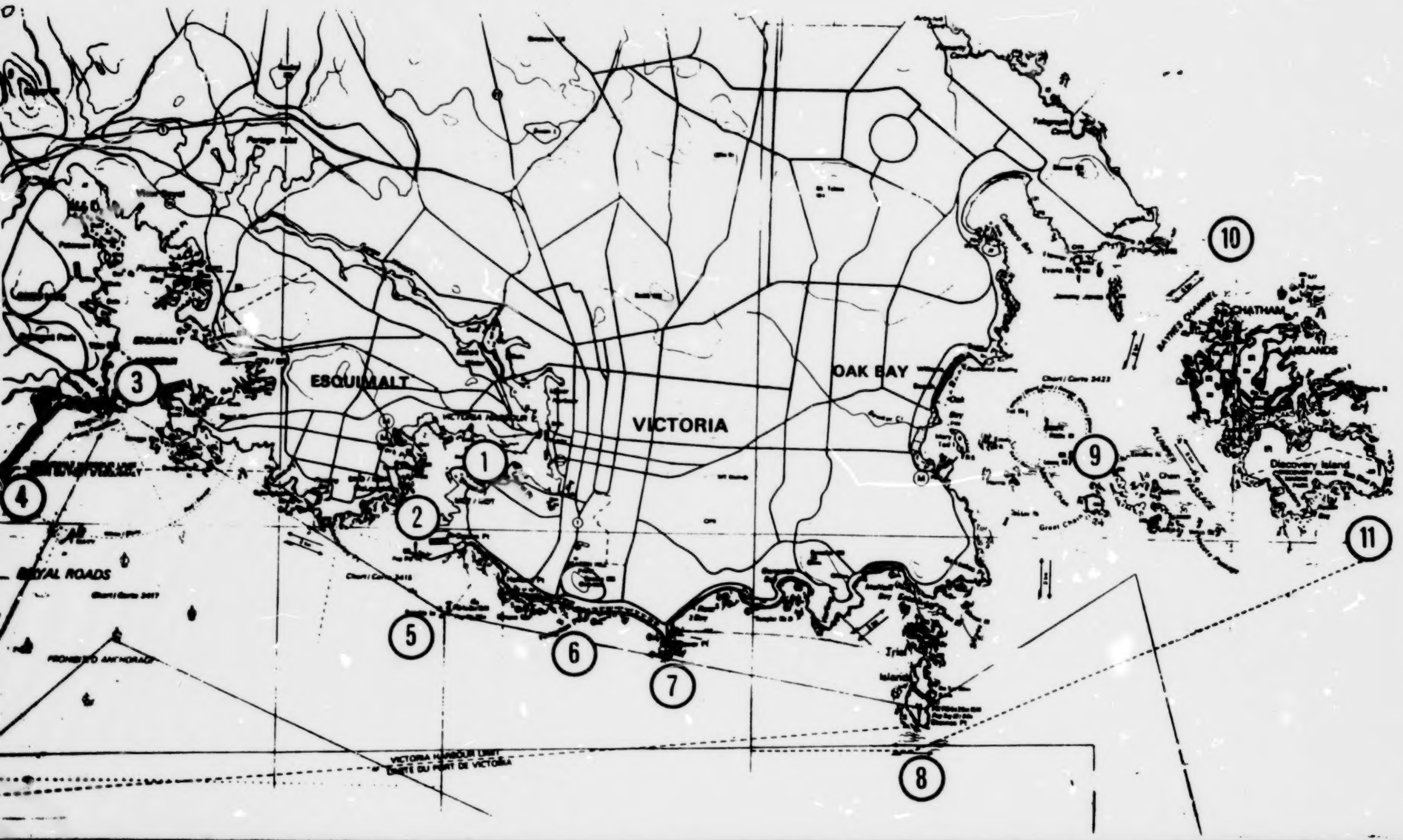
TOUR LEADERS:

Bill Hubbard, Land Analyst, Land Policy Branch, Lands Division
Brian Moen, Policy Analyst, Land Policy Branch, Lands Division

ITINERARY:

3:00 p.m.	"M.V. Norsal" departs Undersea Gardens (in front of Provincial Legislature) for a 4 hour marine field trip. Highlights include foreshore use and activities in Victoria'a inner harbour, Esquimalt Naval Base, Oak Bay, Coastal Islands, and Victoria waterfront.
7:00 p.m.	"M.V. Norsal" returns to Undersea Gardens.

5TH ANNUAL SUBMERGED LANDS CONFERENCE
VICTORIA WATERFRONT TOUR
POINTS OF INTEREST


ESQUIMALT
VICTORIA
OAK BAY
CHATHAM
ISLANDS
Discovery Island
ROYAL ROADS
VICTORIA HARBOUR LIMIT
LIMITE DU PORT DE VICTORIA
Trial Islands
1
2
3
4
5
6
7
8
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10
11

POINTS OF INTEREST
VICTORIA WATERFRONT TOUR

1. VICTORIA INNER HARBOUR

   * Federally managed harbour facility; land use currently in state of transition.

   * Songhees Industrial Reserve (originally purchased from Songhees Band in 1911 for $434,000) has long been utilized for heavy and light industry. Now being redeveloped into mix of residential, commercial, tourism, recreational (including marina) uses by Government (B.C. Place Ltd.).

   * Laurel Point Inn - hotel and condominiums built on former industrial site (paint plant).

   * West Bay - good example of mix of uses; marina, float homes, log storage.

   * Fisherman's Wharf - Federal Government wharf used by Vancouver Island fishing fleet.

2. VICTORIA OUTER HARBOUR

   * Canadian Coast guard station was recently relocated from Songhees area. 10 years ago this area was part of major but unused shipyard facility (VMD).

   * Ogden Point and Breakwater is primarily a cruise ship/tourist transportation facility. A decade ago served as industrial port for transshipment of lumber and wood products and before that for minerals and grain. (The original site completed in 1920's included grain elevators.)

   * The breakwater is 1 km long and 25 metres deep, and built of granite blocks each weighing 20 tons. It was completed in 1920.

   * Work Point Barracks is a training facility for Canadian forces land troops. This use dates back to 1870's when forces on West Coast were bolstered in response to perceived Russian invasion threat.

3. ESQUIMALT HARBOUR

   * Esquimalt Harbour's military heritage dates back to the 1850's and the sailing vessels of the British Navy. It is the primary naval base on Canada's West Coast.

   * Esquimalt Dry Dock dates to 1887 but was enlarged in 1927 from 481 ft. to its present length of 1,150 ft. It was once the 2nd largest dry dock in the world and during W.W.II, the only facility on the Pacific capable of handling vessels the size of the Queen Elizabeth.

- Fort Rodd Hill (National Historic Park) and Fisgard Light House

  Fort Rodd Hill, gained military significance as a result of perceived Russian invasion threat of 1877. It contains military aritifacts from that period to the mid 1900's (declared obsolete 1956). Of interest are blockhouses, field guns, assorted shells, range finding eqiupment, searchlights, etc.

- Fisgard Lighthouse built in 1850's was the first lighthouse on B.C.'s west coast. It was constructed from bricks brought "round the Horn".

4. ESQUIMALT LAGOON, ALBERT HEAD

- Albert Head named after Prince Albert, husband of Queen Victoria.

- Ocean Cement Gravel Pit has been source of construction aggregate for Victoria area for about 50 years.

- Esquimalt Lagoon - Bird Sanctuary behind the 1 mile long spit.

5. BROCHIE LEDGE

- Starting area for annual Swiftsure Yacht Race. This is the premier racing event in the Pacific Northwest and annually attracts up to 400-500 competitors.

- Sewer outfall for the James Bay area of Victoria.

- Brochie Ledge has also been the site of numerous shipwrecks over the years.

6. BEACON HILL

- Popular city park established in 1850's by Sir James Douglas (a free Crown grant from Provincial Government).

- So named because in early days of Victoria beacons were lit as a guide for mariners.

- The waterfront from Ogden Point (breakwater) to Ross Bay (4 miles) is readily accessible for public recreational use.

7. CLOVER POINT

- Site of the main effluent discharge station in Victoria, the area was once polluted, but is now home to a diversity of ducks and other waterfowl.

- 1880's used as a rifle range, 1940's as a search light station (also end of breakwater).

8. TRIAL ISLAND

* Treacherous waters surround Island with currents running up to 6 knots. Several shipwrecks have occurred in the vicinity. Modern day racers love to play the currents and eddies, however, there are still times when a "state of the art 40 footer" runs aground. Presently used for lighthouse and radio transmitter stations.

9. OAK BAY

* Heavily used recreational area. Large marinas are situated at Oak Bay and Cadboro Bay (Royal Victoria Yacht Club). Excellent salmon fishing in immediate vicinity.

* Chain Islets, Chatham Island and part of Discovery Island are designated for public use (park/ecological reserve). The north part of Discovery Island is Indian Reserve.

10. BAYNES CHANNEL/10 MILE POINT

* 10 Mile Point is now a "prestige" residential area.

* During prohibition Smugglers Cove was a departure point for rum runners.

* Tidal currents in Baynes Channel may reach 6 knots and depending on the wind may generate a steep and dangerous chop.

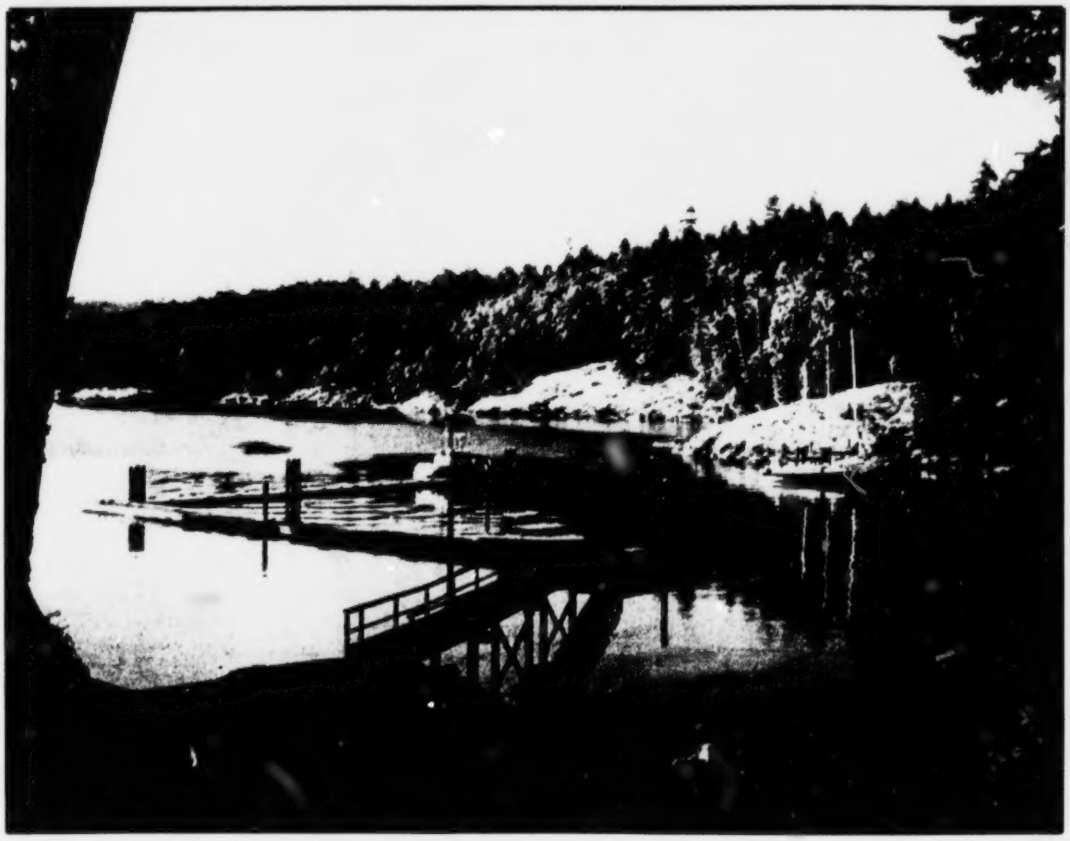
* Island to the east is San Juan Island (6 miles distant). Site of boundary dispute between Americans and British troops in 1860/s/70's. This was peacefully adjudicated by Kaiser Wilhelm of Germany in favour of the Americans.

11. SEABIRD POINT/DISCOVERY ISLAND

* Contorted trees show typical effects of prevailing winds on exposed rocky coast.

* Area is rich in sea life including abalone.

DAY 2



Private dock on Saltspring Island, British Columbia.

WORKSHOP 3 - AQUACULTURE - MANAGEMENT AND CHANGING TECHNOLOGY

1. The Mariculture Gold Rush in B. C. (Dave Butler)
2. Aquaculture in Washington State (Steve Tilley and Robert Hoyser)
3. Aquaculture in New Brunswick (John Kershaw)

WORKSHOP 3

AQUACULTURE - MANAGEMENT AND CHANGING TECHNOLOGY

Chairperson: John Bones

John Bones is Manager of Land Policy and Legal Documentation for the Ministry of Forests and Lands, and has been responsible for coordinating the workshops for this conference.

John has had extensive experience with shoreline management. He received a Bachelor and Master's degree from McMaster University in Ontario. His Master's research involved studies along the coastline of Devon Island in Arctic Canada. John came west to Alberta in 1971 where he specialized in river and lakeshore planning and management work in the public and private sectors. In 1979, he joined B.C. Lands as a planner and soon after assumed his present position as Manager of Policy.

THE MARICULTURE GOLD RUSH IN B. C.

prepared by D. Butler
Land Officer, Ministry of Forests and Lands
British Columbia

SPEAKER'S INTRODUCTION

Dave Butler is a Land Officer with B.C. Lands in the Lower Mainland Region. This is one of the two Regions actively involved in the developing of the aquaculture industry.

Dave graduated from U.B.C. in Forestry and has worked in both the Provincial and Federal Park system. He also worked in the Ministry of Environment with the Fish and Wildlife Branch.

SUMMARY

The rapid development of the mariculture industry on the B.C. coast, particularly its impact on other foreshore and off-shore users, will be discussed. This will include a review of the evolution of, and the existing, provincial Crown policy for allocation of aquatic lands for mariculture in light of the changes in the nature of the industry. A recent review of aquaculture within B.C.'s "Sunshine Coast" region will be highlighted as an example of a method of resolving and minimizing conflicts between mariculture development and local residents.

The Lands Division of the Ministry of Forests and Lands is entrusted with the administration and management of Crown land for the long-term benefit of present and future generations of British Columbians. The Division encourages the development and establishment of the mariculture industry, in a manner which minimizes conflict with other users and which protects the environmental integrity of aquatic Crown lands. Key land use principles guide the programs and policies by which land is allocated, administered and protected with aquaculture as only one of the many foreshore uses for which tenures are issued. However, the recent "gold rush" mentality in mariculture has created the need for a flexible policy, and has focused the need to use principles of integrated resource management on Crown aquatic lands.

All coastal regions have experienced increases in the number of mariculture applications received over the last 4 - 5 years. The largest growth is in the Vancouver Island Region, where they have increased from 54 new applications in the 1985 calendar year to 472 so far in 1986. Activity is now moving northward from the original centres of activity around the Sunshine Coast and Campbell River.

This rush to obtain suitable sites, with the accompanying changes in the technology of the operations, has been mirrored by an evolution of policies for the allocation of aquatic lands. The B.C. mariculture industry began with isolated bottom-culture shellfish operations, but has progressed to advanced long-line and net-pen systems. Current policy deals with considerations such as diligent use of sites, detailed management plans, and types and pricing of tenures.

This sudden interest in mariculture has also created direct and indirect conflicts with other users of aquatic lands, ranging from the coastal forest industry to local recreational and residential land-owners. Concerns include direct loss of sites for other uses, and potential problems with pollution, noise and the aesthetics of the operations. These conflicts are being dealt with through improved review processes, and integrated resource strategies combining negotiation and compromise.

It is expected that the numbers of mariculture applications will continue to increase over the next few years, although they eventually will be limited by one or more factors such as concentration of sites and markets for products. Flexible, fair policies will continue to evolve in combination with increased coordination with other agencies and foreshore user groups in the management of Crown aquatic lands for mariculture.

PRESENTATION

I'd like to talk today about the mariculture "gold rush" which is currently happening on B.C.'s coast, and more specifically, the effects of that rush on management of coastal aquatic Crown lands through land allocation policies and resolution of resource conflicts.

It is the responsibility of the Lands Division of the Ministry of Forests and Lands to provide Crown land necessary for encouraging the growth and establishment of the mariculture industry, in a manner which minimizes conflicts with other users, and which protects the environmental integrity of aquatic Crown lands. We operate under key land use principles which guide the programs and policies by which land is allocated, administered and protected. Mariculture is only one of many uses for which foreshore tenures are granted. However, the recent "klondike" mentality has created the need for a flexible and adaptive land allocation policy, and has focused the need to use principles of integrated resource management on coastal lands.

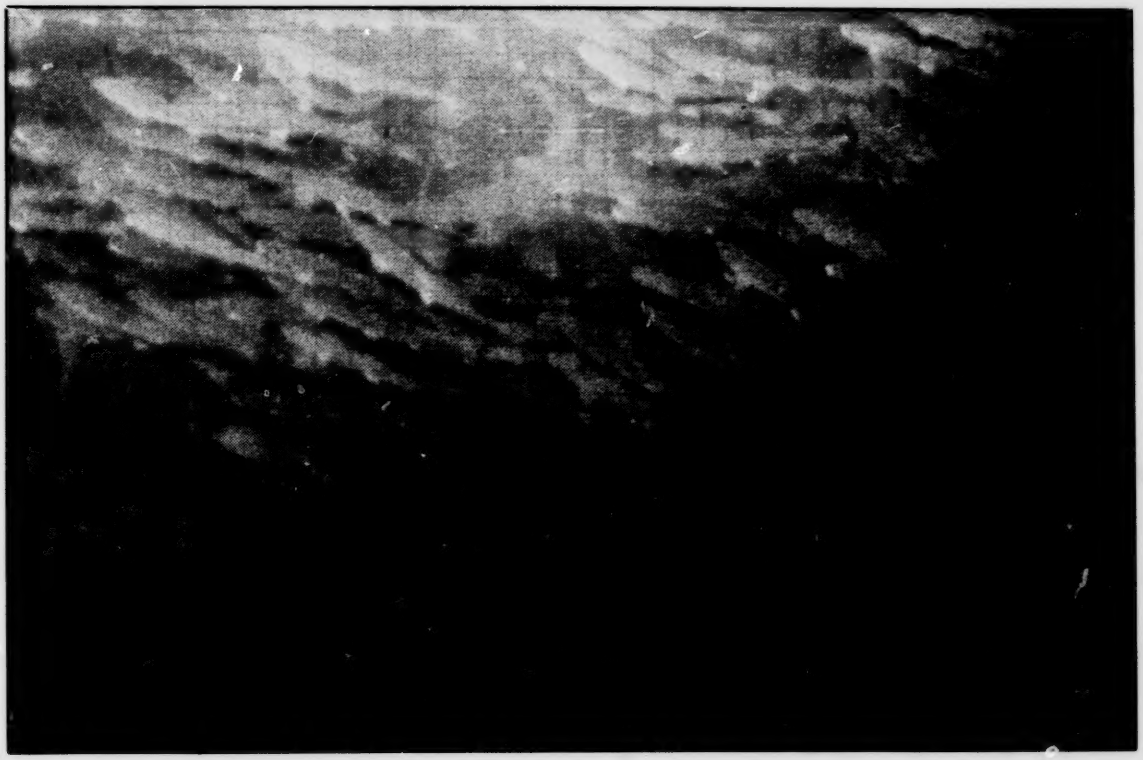


FIGURE 1

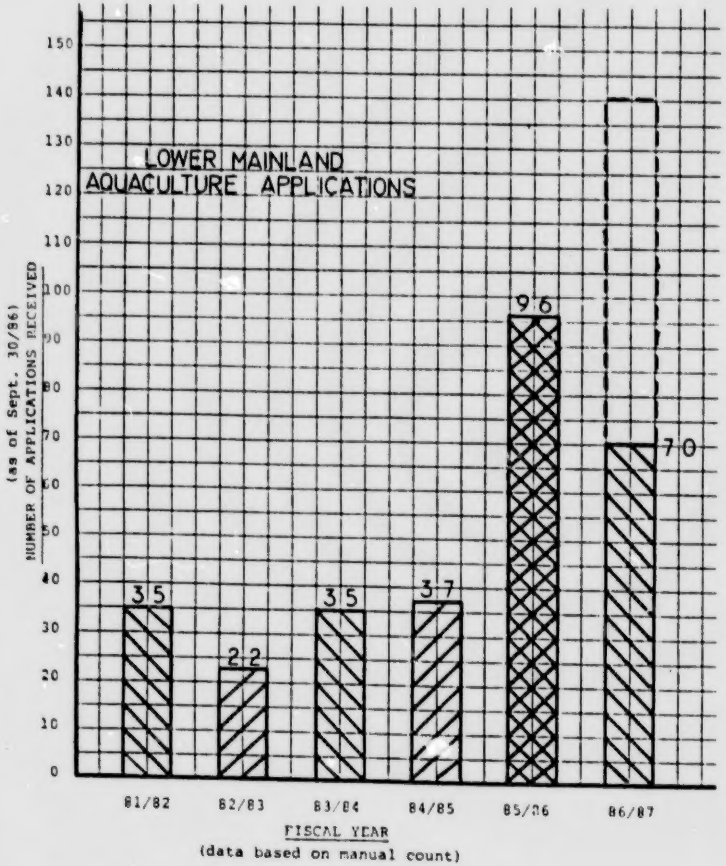
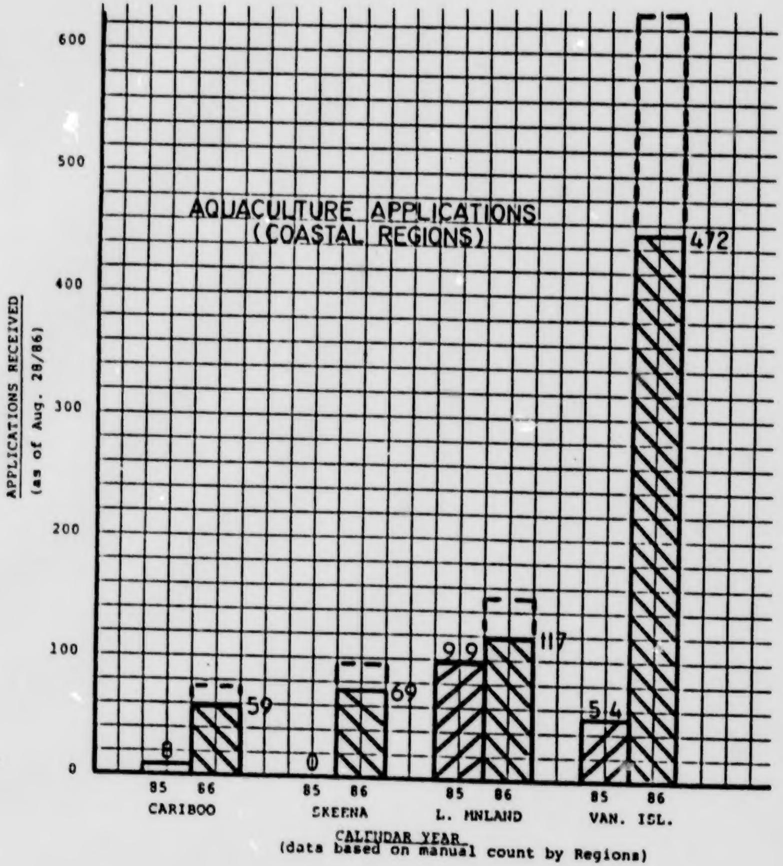


FIGURE 2



The Numbers

How much of a "gold rush" is it? All coastal regions have experienced increases in the numbers of mariculture applications received over the last 4-5 years. In the Lower Mainland, we've seen a steady increase in numbers since 1981/82 (see Fig. 1) with the activity made up primarily of salmon farms. The largest growth has occurred in the Vancouver Island Region, where new applications have increased from 54 in the 1985 calendar year to 472 so far in 1986 (see Fig. 2). Activity is now moving northward along the coast, spreading out from the original centres of activity around Comox/Campbell River and the Sunshine Coast.

Policy Evolution

The rush to obtain suitable sites, with the accompanying changes in technology, has been mirrored by an evolution of Crown policies for allocation and management of aquatic lands for mariculture.

As the original operations involved primarily bottom-culture of oysters, the first aquaculture policy offered only oyster licenses or leases. Growers were charged nominal rents, and diligent use of tenures was determined by review of annual production returns.

In the early 1980's things began to heat up when the Provincial Cabinet endorsed a document outlining a "Policy for Mariculture for the 1980's." Soon after, this Ministry began to receive representations from the industry, which corresponded to the initiation of off-bottom culture techniques for oysters, mussels and others, and net-pen culture techniques for salmon and trout. The growers emphasized the need for longer-term tenures, changes in the methods of valuation and rental calculation, a start-up period with respect to pricing, and tenures for species other than oysters.

The new policy was finally issued in 1983, and it included strategic goals and objectives for mariculture, a re-vamped pricing system and introduced "evergreen" clauses in the leases. This allows for renewal at the mid-point of the initial term. The policy has been amended a number of times since 1983, and now appears broad and flexible enough to accommodate novel approaches to culture and the possibility of changing technology.

Some key sections of the existing policy:

- allows for a five year start-up period with respect to pricing and diligent use;
- use of Section 10's, which are short-term licenses used for site investigation and study;
- use of public auctions for sites, in addition to individual applications;
- diligent use has become a critical factor, and is administered through detailed management plans and production returns, ensuring efficient and effective use of sites;
- the basic premise of the procedures for assignments and transfers of tenures is to prevent non-producers from making profits on Crown aquatic lands through selling to bona fide growers.

The Ministry is also seeing increasing involvement in mariculture by Coastal Indian Bands, who are using it as an important economic activity for Reserves of all sizes.

Resource Conflicts

This mariculture "gold rush" has intensified a historic problem: increasing demands by a variety of users for a finite supply of aquatic lands. And unfortunately, the requirements for a good salmon or oyster site are very similar to those of other user groups.

As an example, recreational resources can be both directly and indirectly affected by a sudden increase in the number of mariculture sites. This includes not only recreational cruising areas, but protected anchorages and swimming, fishing, scuba-diving, and wildlife viewing areas. These activities are often found in close proximity to, or as a result of environmental resources, which are primarily the habitats for all forms of marine aquatic life. In some areas, there is a real danger of gradual and cumulative loss of critical areas of habitat.

The forest industry, another major user of coastal aquatic lands, can be directly affected by mariculture through loss of potential sites for log dumping, sorting, booming and storage. The importance of these sites is evidenced by the fact that about 95% of all wood harvested on the coast enters the sea at some point on the journey from stump to mill. However, log-handing operations in close proximity to finfish or shellfish farms can have serious effects if not properly managed.

It is obvious that many of those involved in the "gold rush" are forgetting the other user groups. This is probably typical of any land use conflict, where existing users oppose new users, and new users consider irrelevant the needs of existing users. It is here where an integrated approach to aquatic land management becomes crucial, involving consideration of all uses, and involving compromise, cooperation and negotiation.

Some areas will be set aside for single uses due to the nature and importance of the resource involved (e.g. marine parks). In the majority of areas though, we'll look to multiple or integrated use. This can be a number of uses on the same site at the same time, or it can involve the identification of a primary use, with secondary uses allowed in the short-term where no irreversible changes to the site occur.

The key is that no one use of aquatic land can occur in isolation from all others. There are both obvious and subtle impacts resulting from any land allocation decision, such as the effect of an aquatic land use decision on the upland areas above.

Sunshine Coast Study

One form of conflict which is difficult to quantify is the opinions and concerns of the local public, particularly the visual and aesthetic impacts of mariculture.

As an example, I'd like to discuss the recent "Review of Aquaculture on the Sunshine Coast". This developed as a means of addressing and incorporating public concerns into the review process for mariculture applications under the Land Act.

There has recently been an extraordinary amount of media and public attention directed towards the Sunshine Coast and toward this Ministry because of a number of factors:

- sudden increase in number of mariculture applications;
- local upland and foreshore zoning in place, which turned out to have been based on some incorrect assumptions;
- obvious lack of public education relating to mariculture;
- inherent nature of area, with a large % of population being retired couples.

The first step in the review consisted of a questionnaire which was sent to all residents of the Sunshine Coast. This included general information relating to salmon and oyster farming, and a request for opinions, concerns and experiences with the industry. Responses were broken down into geographical sub-areas for further analysis.

The next step involved preparation and collation of all available biophysical, land status, and zoning information for the area. This was placed on a series of five base maps, and was taken by a group of resource people to public meetings on the coast. These meetings provided additional information to the local public, while allowing for detailed questions and additional input to the review.

The final step consisted of preparation of "acceptance mapping" in conjunction with the local Regional District. This combined public concerns, land status, existing uses and sensitive environmental areas into broad zones of public acceptance of the industry. This acceptance mapping has now become the central focus of the new "Guide for Prospective Applicants". The guidd does not designate areas for or against mariculture, but tells prospective applicants how to deal with referral agencies and the public, and what to expect from the public in the way of concerns. Each level of acceptance from the maps will correspond to differing levels of public involvement increasing as local acceptance decreases.

The Future

The B.C. coast is undergoing a "gold rush" of sorts at the present time. It is expected that the number or mariculture operations will continue to grow over the next few years; however, they should eventually be limited by a combination of factors such as:

- distance to markets and suppliers;
- concentration of sites (potential problems with disease, and exceeding the carrying capacity of poorly-flushed inlets);
- increasing pressure from other users of aquatic lands.

The Provincial Crown will remain adaptive with policies which provide Crown aquatic lands needed for growth of the mariculture industry, while minimizing conflicts with other users and protecting the marine environment.

This will mean working towards flexible and unique solutions to conflicts on a site-specific basis in the short-term, and taking a strategic and integrated view in the long-term. The rush for sites will also mean an increased need for coordination with environmental agencies, with local government and with other foreshore user groups; improved public input in controversial areas; and increased emphasis on cooperation, compromise and negotiation in aquatic land management.

AQUACULTURE IN WASHINGTON STATE

prepared by Steve Tilley and Robert Hoyer
Department of Natural Resources
Washington

SPEAKER'S INTRODUCTION

Steve Tilley is the Assistant Division Manager of Aquatic Lands for the Department of Natural Resources in Washington State.

His academic background includes a Bachelor of Science degree from the University of Massachusetts and a Master's degree in Environmental Management from the University of North Carolina.

He has worked in Washington State as a County Planning Director and a State Environmental Planner.

SUMMARY

Aquaculture Siting in Washington State

1. Overview of current aquaculture industries in Washington - profile of aquaculture industries now doing business.
2. Overview of siting process for aquaculture - description of the planning and permitting process, relationship of state, local, and federal agencies.
3. Issues in siting of new aquaculture facilities - outline of issues of concern to upland residents, environmental groups, recreationists, and business.

4. Resolution of aquaculture siting issues - description of current and future state and local efforts to smooth the siting process.

PRESENTATION

It was good that Dave went before me. In Washington we are experiencing fallout from the Canadian aquaculture explosion. It is really a fallout from the European aquaculture explosion at second hand. And this fallout is causing us to re-examine a lot of concepts that we have had about aquatic land management.

We are re-examining the way the resource agencies look at aquaculture as a wonderful opportunity for aquatic development. We are reviewing the property rights that shoreline residents bought when they bought on the shoreline. And we are re-examining the relationship that the state agencies have with local governments. As you know, in B.C. and Canada the land use planning is much more centralized than it is in the U.S. or at least in Washington State. We have a decentralized planning operation: the countries and the cities take the lead in land use planning and zoning, and the state sets general guidelines and establishes policy.

Today I would like to explain a little bit about where we are in Washington in aquaculture development, and show you what kind of approaches we have taken in dealing with the aquaculture issues that have fallen upon us. We have a long history of aquaculture in Washington State. Oyster culture has been a part of the state since statehood. We produce about 15 percent of the country's oysters, most of it on private land, but the state has about 3,000 acres of leased land for oyster culture. We have over 400 acres of land, with submerged land leased for mechanical clam harvesting. The state manages a commercial geoduck fishery. For those of you from out of the Northwest, a geoduck is a large clam that grows to about 10 pounds and it is a delicacy in Japan. We sell five million pounds a year, which produces about $700,000 a year in revenue for this state. But the new kids on the block are salmon and mussel culture. In the last 10 years we've seen a tremendous interest in both these operations.

Washington State, as a matter of fact, is now the world's largest producer of pan-size salmon. We have the largest single salmon farm in the world, I believe--over five acres of salmon pens. A salmon pen is a structure usually 20 to 40 feet across, surrounded by nets and perhaps 15 feet deep. The salmon are put in there when they are young and there they are reared to market size. You can market them at pan-size, a pound or a pound and a half, or you can grow them to 12 pounds, and make them into a big fish that you would find in fresh fish market. We have about 100 acres under lease currently for salmon pens and we have 21 applications for additional pens. This does not seem like a lot compared to the 400 applications that you heard of from B.C., but I think that is because Washington State is much more highly developed than B.C. Our problems and the response that we have to take to those problems has really been much more intensive.

We also have mussel culture. We have about 60 acres of mussel farms under lease now. We have about 90 more acres under application that will be under lease very soon. The planning process, as mentioned, that we have used is to rely primary on local governments to take the initiative in land use zoning, and this includes aquatic land areas. And we have worked with local governments as they went through their planning operations, held public hearings, and developed policies and standards for various kinds of land use, including aquaculture. For example, one county in Puget Sound went through over five years of debate over planning an aquaculture policy. They went through a regional aquaculture study. I think it cost something like $100,000, from looking at all kinds of potentials for aquaculture development, to looking at policy and standards that they could apply. We worked with them. They finally came up with a scheme whereby they established aquaculture districts. These were essentially areas that might be from 60 to 80 acres in size where they said aquaculture ought to go: these areas are suitable and we think we can live with this development in these areas. Generally they chose rural uplands so that the shoreline residents would not be impacted.

The problem was that they planned for the wrong species. They were thinking in their minds all these years about mussel culture because that was what got them started on this project. Now last year salmon culture became very popular and they received application for seven salmon farms in three different districts. Puget County officials were thinking about having plenty of extra land in these districts available for long term expansion of the mussel industry and being able to say yes, we satisfied the mussel industry. Well, as soon as they opened up the districts, the districts were completely applied for by both mussel and salmon farmers. It also turned out that the residents that were offshore of some of these districts lived outside of the county and had not heard about the planning project. They were also very influential, wealthy people, in second-home developments. All of a sudden we started getting phone calls from legislators in Seattle whose constituents have a second home out on the island: "They are very concerned because their second home is going to be impacted by a mussel or salmon culture operation that is going into their favorite sport fishing ground. It is going to be right in their view. It is going to impact the log tows that go by. It is probably going to cause all kinds of terrible environmental impacts. I am sure the bottom is going to be impacted. I am sure we are going to have water pollution. I am sure we are going to have antibiotics being thrown into the water indiscriminately." And on and on. This summer, I don't know how many phone calls our office had--I had about five from various legislative staff people. This fall we have already had two legislative committee hearings getting ready for the next legislative session.

I think you get the idea. Aquaculture is a controversial topic, much more so, I gather, than it has been in B.C., for a number of reasons. To deal with this we have taken a number of approaches as a state agency. We have really had to rethink our traditonal reliance on local governments as the lead entity in planning for aquaculture. Local governments are all of a sudden looking to us and saying, "What are you doing to us? You have been pushing aquaculture all these years, and now you want us to take this tremendous development without giving us any guidance. You have been forcing this down our throats, and now we want you to help us out. So, I will review the things that we have done as an agency to try and deal with these complaints.

This summer, first of all, our department land commissioner passed an order establishing some interim siting guidance for salmon pens. It is fairly simple, one page--a first cut, really--to show the industry and the public that we are concerned, that we want to look at the cumulative impacts of these projects, and exert some management. The order calls for operations to be no more than two acres in size per site, for sites to be separated by one mile at least, to be in at 40 feet of water, and to be compatible with existing aquaculture activities. Beyond this we're re-evaluating the fee structure. Bob Hoyser will be talking about that in a minute. We are wanting the fees not only to produce adequate revenue, but also to prevent excess speculation on sites.

We are also looking at the application requirements that we are placing on perspective lessees. Last winter we developed a supplemental application form, outlining a lot of information that we don't get from any other kind of lessee. We want to make sure that the lessees are financially capable of carrying out the activity, that they are technologically equipped to do this, and that the sites are good ones. We also want to know what they are going to do out there. We want to know what kind of structures they are going to put out there, what kind of a schedule they have for developing those structures, and how they are going to operate those structures. This is important because once they get into operation we want to know that we can require them to proceed with that operation in a timely manner. If they do not get the structures in the water, and get under operation as they have told us, then we have grounds to go in and either encourage them to speed up or else to turn the site over to another operator.

We will soon begin to require a base line environmental survey of the sites where we will have salmon pens and follow-up environmental monitoring. I'll talk a little more about how we are going to do that in a minute.

We have had a couple of things happen from other state agencies that have given us a lot of help. This summer our state department of fisheries produced a report called the Environmental Effects of Floating Mariculture in Puget Sound. I think it is probably the best survey of literature available on floating mariculture. It talks about potential impacts: on the bottom from sedimentation, on the water column, from the use of antibiotics and drugs, from the introduction of non-native species, from phyto-plankton blooms--just a number of potential enviromental impacts. This has been a good base line for us to use, partly in the development of this commissioner's order. But it will also provide a background from which we can proceed into more detailed development guidance.

Another state agency has just finished a study on aesthetic impact of floating aquaculture. They are producing a report that will describe typical impacts of aquaculture on different types of aquaculture activities. They are producing a slide presentation that will show typical shoreline views from different bank heights, for instance different cove situations. Then with computer graphics they put in different types of aquaculture facilities, so you can actually see what kind of view upland owners would have from their type of shoreline, given a particular kind of operation.

Finally, other state agencies and the Department of Natural Resources will be cooperating in preparation of a state-wide siting guidance that will apply to salmon-pen culture. A draft of this will be available within two months. Then we will produce a full environmental impact statement on that siting guidance, based largely on this work. After that we will go into other areas that we just have not dealt with, like navigation impacts, economic impacts on the fishery, and aesthetics.

I guess in general we are experiencing the same kind of development gold-rush, as B.C. and other jurisdictions on the east coast. We have gone into it very intensively, not by choice, but really because we have been forced to deal with the problem at a state level, where we used to rely on local governments. We have had to redefine our view of aquaculture. We used to look at all aquaculture as being a wonderful thing to happen in the water, water-dependent, good for the water quality, and the rest of it. Now we are starting to look at each aquaculture operation individually, and having to assess whether that type of operation is really the best thing for a particular area.

AQUACULTURE IN WASHINGTON STATE

prepared by Robert Hoyser
Department of Natural Resources
Washington

SPEAKER'S INTRODUCTION

Bob Hoyser is a Program Coordinator and Manager in the Department of Natural Resources, Aquatic Lands Division for Washington State.

Bob has a Bachelor of Science Degree in forest management from Oregon State University. He has practised forestry in Washington State and is now heavily involved in managing state aquatic land uses.

SUMMARY

The Division of Aquatic Lands Management has met with representatives from the Washington Aquaculture Council (WAC) concerning Department of Natural Resources (DNR) lease rates for Aquaculture. The WAC group represents aquacultural interests in finfish, sea vegetables, clams, mussels, and oysters.

The series of meetings have an objective of producing a stable, predictable lease rate structure for aquaculture firms which both private businesses and DNR, as public land custodian, agree are reasonable.

The lease rates must recognize the different types of aquaculture and their financial characteristics. DNR is attempting to foster aquacultural development through economic incentives; however, aquaculture is in a growth period and entrepreneurial speculation is to be avoided.

Aquaculture is a term that in day-to-day practice has different meanings to different people. It provides an umbrella under which will be found a variety of food or fibre-producing harvesting activities, each of which may

have distinctly different site requirements, investment requirements (capital, aquatic land, labour) and production potential. Examples of the spectrum are geoduck harvesting and salmon net pen farming. Geoduck harvesting is essentially an extractive use where a person acquires a lease or right to harvest a naturally-occurring resource growing in or on the public land. Capital investment on the site is minimal or nonexistent. The major financial risk is generally limited to the availability of a market. Under a careful harvest regime, the crop will replenish itself through natural processes. Salmon pen operations, on the other hand, require significant onsite investments in equipment and growing stocks. Financial risks are high because of uncertainties associated with new technology and extended amortization periods. However, both of these harvesting activities encumber or require exclusive use or access to state-owned land. In return for this right, the public is entitled to a reasonable fee for removal of a resource or use of its land for a private profit-making purpose. However, the fee amount may vary according to the type of activity.

Aquaculture fee structures and rates will reflect the differences between those activities which are extractive in nature (natural production) and those which are capital-intensive with no natural production present.

PRESENTATION

Aquaculture lease rates in Washington State have been consistently varied, historically. Also they have been varied between the various animals or plants that have been produced and also between the producers that are producing the same kind of an animal. We want to correct that especially now with the big rush on the aquaculture, the new interest, and the real potentials that we have for aquaculture out there.

In 1984, the Washington State Legislature passed legislation that said that we would establish rentals for aquaculture either through the public auction process or we would negotiate. To accomplish that we needed an overhaul of our rate structure, and that makes industry nervous. So about seven or eight months ago we began meeting with representatives from the aquaculture industry, who are involved with finfish, mussels, clams, oysters, and sea vegetables. Through a series of meeting we came up with some procedures and some possible lease rates.

We are not done yet but I will present what we have come up with so far. First of all we set goals. We agreed that the rates that were charged had to be reasonable for both the public sector and the private sector. The rates had to be predictable and they had to be stable. They had to recognize the productivity of the site and the different aquaculture types and to recognize that there is extractive aquaculture. We do not really consider the difference between aquaculture that is basically hunt and gather, versus that requiring heavy onsite investment, such as is necessary for a salmon farm operation. We wanted to avoid a rate structure that was going to encourage speculation, brokering, and buffer strips. They were pretty admirable goals, but industry was still nervous. I have a handout that explains the concepts that we're operating under.

Mussels

As of our last meeting in mid-September, 1986, with the Washington aquaculture representatives, we developed the following procedures for mussels. By statute an aquaculture lease tenure can be only ten years so that applies to all of these but, for mussels we were opting for a $50 per acre per year rate for the first three years of the tenure or lease. At the end of the third year we will go to 2 1/2 percent of the wholesale price of that mussel based on an assumed production of 10,000 pounds per acre per year. You can see that this almost will have to be regionalized after a while because while some places can produce 10,000, others can produce 15 and others maybe even less. For the last four years of the lease we are not quite sure yet, but we may stay at the 2 1/2 percent. We wanted to have another window period to go into that lease and talk about and negotiate rental rates.

Salmon

For salmon again a ten-year term is required but we are opting for $250 an acre a year for the first three years as a start-up rate. And then for the rest of the lease term we would base the rental on the assessed upland value that supports that facility. And we are going to use a formula something like the one that B.C. is using for marinas. It is not quite as complicated: but it is 30 percent of the assessed upland value multiplied by 5 percent.

Clams

We recognized the extractive production and we've established a rate for that whereby the state hunt-and-gather type of lease would take 1/3 of the production or 1/3 of the dock-side price of those clams. Now there are also enhancement measures that someone can do on a clam beach to make it better. They can seed it, they can manipulate the cover on the beach, improve the habitat, and increase their production. Now, we do not want to penalize them for that so, we are still working on what percentage of enhanced production the rental rate should be.

Oysters

I will refer to the ground culture of oysters first. I am not sure if that we are going to stay with this but we are looking at the assessed value of those tide lands based on a productivity schedule. Top number one ground would be excellent growing and fattening ground, and be charged, say, 10 percent of the assessed value of those tide lands. From there the rate goes right on down to what we call class 5 ground which is marginal oyster ground. We are opting for a ceiling or cap rate of 10 percent. Then you get into the off-ground oyster culture. When I mentioned mussels I was talking about off-ground culture, which really means in both cases that we are talking about the water column. What we really need, I suppose, is a biophysical rating system that Dave Butler was talking about, but we are not there yet with the off-ground culture.

Sea Vegetables

With sea vegetables, nori, that kind of thing, right now we are in a negotiating phase on a case by case basis. The same process applies for scallops, and abalone. We've had some real interest in abalone in the last couple of months and we are going to have to approach it by asking what they can produce, and what they need for a start-up rate. Finally, these lease rates that I am talking about per acre are based on a leased acres, including what they need for anchors and anchor lines. I am not basing it merely on the netted perimeters. All of these tenures, we have said, will have a cap rate, so everybody will know how high that rate can go. The rate will be based on the formula that I mentioned, on the assessed value of the uplands used to support the activity.

That is what we are attempting to go with our aquaculture grades. That is where we are at this point.

AQUACULTURE IN NEW BRUNSWICK

prepared by John Kershaw
Department of Natural Resources and Energy
New Brunswick

SPEAKER'S INTRODUCTION

Some of you will remember John from yesterday in Workshop One. John is head of Land Tenure Unit and works with the Department of Natural Resources and Energy in New Brunswick.

He has been involved with the aquaculture industry in that province.

SUMMARY

1. History of the Industry
2. Industrial Strategy
3. Suitability and Advantages of New Brunswick Waters
4. Management Issues and Conflicts

PRESENTATION

Between 1977 and 1980 the federal Department of Fisheries and Oceans and New Brunswick Department of Fisheries in conjunction with some private interests decided to test some sites down in the Bay of Fundy to see if salmon could be raised in pens. The studies concluded that the Bay of Fundy actually offered a lot of distinct advantages for this type of thing. First of all the thirty foot tides caused an upwelling which brought the warmer waters in and thus the lethal temperatures for salmon were reduced or the potential for it was reduced. In addition, people often compare the Bay of Fundy to flushing your toilet twice a day. The tide comes in and goes out, and takes away all the fecal matter and the excess feed from underneath the cages. So it is quite good for that, and we do not have the build-up problems that some other people have. In addition, the coastline of New Brunswick is such that there is a lot of bays and inlets that would protect these cages and also mussel lines from wind and wave action. So the Bay of Fundy down in the St. Andrews area, for those of you who are familiar with it, actually offers an ideal location for the culturing of both shellfish and finfish.

The last year and a half we had over 160 applications for finfish and shellfish aquaculture. Again in comparison to B.C. that does not seem like a lot but we're only talking about a very small area, you know. That is a very heavy concentration. In one small bay we had between five to eight aquaculture operations starting up. When you talk about a mile separation distance that Washington is implementing and I think it is a half a mile here in B.C., we are talking 1,000 feet. So you can see that we are a little bit more concentrated--again because the Bay of Fundy tides allow the flushing action. I will show you a slide of one of our largest operations. We are quite proud of it actually. It is easy to monitor, easy to administer. We are limiting the size of the operations but we are getting applications now for large mussel operations. One mussel operation if approved would be 120 acres in size.

Now how did New Brunswick respond to all this activity and interest in acquaculture? Well we in government have our view how we dynamically approached this problem and solved a lot of the issues even before they occurred. However, the media had a slightly different interpretation and the political cartoon I will show you now was presented in one of the local newspapers. In it there is an individual called N.B. driving into a pool with the caption "Aquaculture" on it. The three judges are giving a reading 8.59 and 8 and the caption from one of the judges reads "ridiculous form as usual, but at least he seems to have found a good pool." So although there may be some argument about how we are approaching this down in New Brunswick, everybody knows or feels that we have a good pool to jump into. Here is why. In 1983 the value of production from the initial five producers that started up after the feasibility studies was $1.7 million. In 1986 the estimated value is going to be $8 million. In 1992 the projected annual value from salmon aquaculture alone in the Bay of Fundy is going to be $50 million. Now this doesn't include all the value from things such as the aquaculture related equipment, fish feed (actually, it looks more appetizing when you can't see it) and hatcheries. Also other things going on, such as fish health, nutrition, packaging, and transportation, are not part of the $50 million. We feel in New Brunswick that aquaculture holds one of the greatest potentials as an industry for the province. We do not have a lot of the advantages of central Canada or even some of the western provinces, but New Brunswick by-and-large is a fisheries-oriented province and this for us is a real key in terms of our industrial strategy for the future.

Now there are three departments in New Brunswick currently involved in aquaculture. We have the New Brunswick Department of Fisheries which is involved primarily in the culturing phase of the product. It is they who give the technical advice as far as getting the guy started in the industry and helping him out. They actually administer some grants and loan programs and this sort of thing. They are the technical experts in the aquculture field. The New Brunswick Commerce and Technology Department is more involved in the processing phase of the product. They are out there helping to put together the fish processing plants and that sort of thing. Then our department, which is Natural Resources and Energy, actually allocates the land to support the finfish and shellfish operations.

Unlike British Columbia our department of Agriculture is not currently involved in aquaculture at all. Agriculture is just starting to talk to aquaculture interests a little bit, and maybe seeing the dollar signs going off in their heads. I do not know if they will get involved in the future but as of right now they are not involved at all. The federal agencies involved right now are Fisheries and Oceans Canada, the Coast Guard and the Environmental Protection Service. I spoke a little about them yesterday. The Department of Fisheries and Oceans has established a salmon demonstration farm down in the Bay of Fundy. They are actually operating about eight to ten cages and testing different types of fish feed, and different types of cages. They have an octagon-shaped cage thirty feet in diameter and a sixty-foot diameter cage. Anybody in the industry can go out to those cages take a look at what is happening and talk to these people. At the same time there are other types of testing going on. So there is a real advantage for the industry to have a demonstration farm there. The Coast Guard must approve all structures in the water from a navigational standpoint. The Environmental Protection Service actually monitors the paralytic shellfish poisioning and the bacterial contamination as I mentioned yesterday. Those areas that are closed to harvesting are identified, and we do not allow any operations to occur where there is high paralytic shellfish poisioning.

The slide on the screen shows one of the signs that the Environmental Protection Service puts up in the areas that are closed for shellfish poisioning. Now in a concerted effort to promote the aquacultural industry, the federal government and the provincial government established the Southern New Brunswick Aquaculture Development Committee. This is composed of Fisheries and Oceans Canada, industry representatives, the New Brunswick fisheries and the New Brunswick Commerce and Technology Department. Now I ask you, does anybody notice which agency is missing from that? Yes, we are having troubles trying to get ourselves established with the traditional Fishery Agencies and that is one of our concerns. We have put together a little presentation to them to suggest we be on that committee, but as of right now, they invite us to sit on sub-committees but not on the overall guiding committee. The first problem we encountered in trying to put together a strategy in terms of land allocation was the inter-agency coordination.

To streamline the review process we formed a committee from our Departments of Natural Resources and Energy so we could invite anybody we wanted to. The other members of the committee are the New Brunswick Department of Fisheries, Canadian Coast Guard and Fisheries and Oceans Canada. Simply what happens is this: when an application comes in we send out the application to a number of agencies. When we get comments back in we sit in this committee and we go over each application. This way everybody knows what everybody is talking about. Before, everybody was getting a different set of plans: the Coast Guard would get one set of plans, we'd get another and Fisheries would get another. We would be approving this site over here and Coast Guard would be approving another site. Now we are sitting together everybody knows what each other is talking about. It has really helped to streamline the organization.

Now at present the basic policy thrust for aquaculture in New Brunswick is to establish a moderate number of medium-sized commercially viable farms. We do not want the hobby farms and we did not want just a very few, very large operations. For a stable production sector we wanted to get a fairly large number of medium-size operations. Some people call them family businesses, but I think it has gone beyond that. We just wanted a fair number so if somebody went under it wasn't going to hurt the rest of the industry. In order to achieve this what we are attempting to do is to limit the size of each operation to 100 tons. Now that means that on any site the maximum number of fish you would be allowed to have is 60,000 at any given time. That means that you would get 30,000 new smolt per year added to the farm each year to give you the 60,000 so you have 30,000 new smolt and 30,000 second year smolt.

There was also a recommended site configuration in order to achieve this. Initially what we are talking about in order to accommodate a 100 ton operation farm is a five acre site. This was enough room to accommodate the cages as well as the mooring lines. With the Bay of Fundy tides, they quickly found out that 150 foot mooring lines were not sufficient; they had to go to 300. We established a very large number of farms by setting aside five acres, but now we are beginning to see that they actually need 15 acres. So we separated two cages 1,000 feet apart gave them 5 acres each. Now we are talking 15 acres and the operations are starting to grow together, so you can see from this some of the problems we are starting to get into already.

Now I think I am going to run out of time here so what I am going to do is jump ahead. I noticed that in some of the other people preceded me started talking about leasing arrangements and that seemed to be where the questions were heading. I think I will jump to that and talk about that a little bit and then if you have any additional questions I will be happy to answer them.

Again I mentioned, we have 1,000 feet between all uses we had a committee look at that there was no scientific data to justify that it was simply the federal regulation that we have that separates herring weirs where down in New

Brunswick and other areas. We simply applied that. We are running into problems with it we wanted a greater distance but there were already some farms established and I think there was a bit of inertia set up they didn't want to change that. Lest we look like what we didn't know what we were doing but know we are running into problems with that. We have to keep a scallops and mussels away from each other as well. We are just starting to get into some scallops applications. One person came in said he wanted to culture those two uses in conjunction. We have since found out that if you do that the mussels may actually smother the scallops so now we are finding out or are advised to keep those two uses quite a bit separate in fact. We also, were told to keep herring weirs and cages separate from mussel operations lest the mussels foul the netting of those two operations. We are starting to talk a little bit about designating areas down in the Bay of Fundy that are relatively free from paralytic shellfish poisoning. Designate those areas so that if we are going to have a commercial viable industry that those areas don't get taken up by the finfish operations but set them aside strictly for the shellfish operations.

We are also getting into a number of upland applications on Crown land for hatcheries. One of our advantages is that my department administers a large dam and reservoir system in the Muskwash area of the Province, which is down by the Bay of Fundy. It just happens to be an ideal location for hatchery development and we are getting tied into this a little bit. Normally we deal on a first-come first-served basis but some of the people who got there first are the ones who already have a large number of the hatchery operations and we're not so sure we want to concentrate the entire smolt supply in one or two companies. That is why we are looking very carefully at how to get around that problem.

Some of you are probably more interested in the lease rates and how we administer them. The new operator is given what we call a Minister's Letter of Approval. Once he is approved, our Minister simply gives him approval to occupy the site. He can get approval for up to three years, which is considered an experimental phase, and he is charged $55 a year for that. That approval is non-transferable, so it cuts down a little bit on speculation activities. When a person enters a lease, it is by statute a ten-year lease, non-renewable. In other words, it has to be re-negotiated. In terms of the rental charged there was a comparison done of the upland agricultural uses so it is based on market value and economic rent. We have gone to a class assessment which simply means all operations are charged $250 a hectare or $100 an acre. Regardless of where they are they are charged $100 per acre. That very quickly tells you where we are in New Brunswick. We are doing well in some areas, but we are having problems in others. I really want to thank the organizers of this conference for inviting me out here because just in the first two days I have really learned a lot about what other jurisdictions are doing. I think it has been a real advantage for me. I want to thank them and I know they are doing a great job. Thank you very much.

WORKSHOP 4 - FLOATING HOMES - MANAGEMENT AND CHANGING LIFESTYLES

1. Recreational Houseboats in the B.C. Interior (John Thompson)

2. Floating Residential Communities in California (Lance Kiley)

3. Floating Homes - An Idaho Perspective (Lance Nielsen)

WORKSHOP 4

FLOATING HOMES - MANAGEMENT AND CHANGING LIFESTYLES

Chairperson: John Morton

John Morton is a Supervisor in the Public Lands Section of the Ontario Ministry of Natural Resources. He has worked in many capacities with the Ministry ranging from Conservation Officer to Forest Ranger to Regional Lands Administrator.

RECREATIONAL HOUSEBOATING IN THE B.C. INTERIOR

prepared by John Thompson
Regional Director, Ministry of Forests & Lands
British Columbia

SPEAKER'S INTRODUCTION

John Thompson is the relatively new Regional Director for B.C. Lands in Williams Lake, Cariboo Region. Previously he worked as Manager of Land Administration and as Manager of Development and Marketing in Kamloops.

John attended Eastern Washington University on a athletic scholarship and graduated in 1971. He has maintained his interest in sports and is a member of the B.C. Recreation Association and Sport B. C.

SUMMARY

Until 1980, recreational houseboating in the interior of B.C. was a unique attraction which drew only a few tourists. It catered to the "get away from it all" tourist who was willing to rough it on relatively small sparsely equipped vessels in order to gain solitude and access to wilderness areas.

As the average consumer's disposable income increased, entrepreneurs saw an opportunity to expand this vacation opportunity. Firms invested large sums to launch fleets of houseboats. Favourable federal tax laws enabled major tax breaks to investors who pooled their vessels or rented them on a time-share basis.

The sudden advent of large fleets of houseboats and the expansion by smaller operators changed dramatically the traditional use of affected lakes. The new companies targeted entirely different markets. No longer was the family vacation the only business. Larger boats sleeping up to 10 individuals could be rented by groups of young people, many of whom had different ideas

family vacation the only business. Larger boats sleeping up to 10 individuals could be rented by groups of young people, many of whom had different ideas about the ideal vacation. They wanted excitement out on the lake and the houseboat companies complied.

The modern houseboat is up to 48' long and with all the comforts of home, including powerful sound systems. The companies offered comprehensive vacation packages, some of which included special water activity days (jet boating, para-sailing, waterskiing) and evening parties at designated sites on lakes.

The increased number of houseboats and this new clientele, coupled with B.C.'s land use policies have created major management problems for B.C.'s land management agencies.

Management Problems:

- Most upland owners control their properties only to the high water mark; therefore, houseboats may beach in front of private upland during certain times of the year.
- Powerful stero systems disturb other boaters and upland recreationists.
- Drinking and rowdiness are perceived to be a problem by upland owners.
- Waste disposal (particularly "grey water") is a concern to local residents.
- Congregating houseboats can take over entire beaches, excluding other users.
- Safety issues, such as the competence of inexperienced houseboat operators.

- Pressure on the lake system by the large number of houseboats. (Will too many boats decrease the recreational experience?)

The Ministry of Forests and Lands has taken an approach that seeks solutions in proportion to the complexity of the problem, without becoming regulatory. We have encouraged houseboat companies to regulate themselves and users by forming associations and policing each other's activities. Although there is a long way to go, there is a definite improvement in houseboater conduct and consequently less conflict with traditional recreationists and residents.

PRESENTATION

Before I start I would like to ask how many of you here find commercial recreational houseboating to be a major issue in your jurisdiction. A few, not all of you. What I am going to do is show you a few slides that will depict the advent of commercial recreational houseboating in the interior lakes of this province. There are two major lake systems that we are dealing with here. I will show you how the problem has grown and talk to you about how we are dealing with it.

Frank Edgell said yesterday that our Ministry is client-driven, and it is very much so. Some of us in the regional operations think that it also pushed and kicked and shoved along the way by those clients, but somehow we make it. What I want to talk about today is not policy. I do not want to talk about policy and how we deal with water and land issues to do with houseboats. I would like to talk about attitude. We in this province tried every scenario possible I am sure when it came to dealing with houseboats and those kinds of foreshore and water uses. We didn't implement those policies because we couldn't find one that would work. One would always lean to take care of the upland owner or it would take care of the houseboater to the exclusion of the upland owner. We felt that we had to do something about our attitude and about the public's attitude towards houseboats.

Our new Deputy Minister is a pretty aggressive guy, you know. He likes to tell you he wants to see things happen and he tells you, "Make it happen." Generally we are doing that with a lot of our policies, and in particular with houseboats--and without regulation and legislation.

I will just go through a few slides and talk about a few things as we go. This is a houseboat and it is on a lake in south-central B.C. That would be your typical view of a houseboat, in a pristine lake, by itself. Here is a map of British Columbia. I mentioned two major lake systems in British Columbia. One of them is Shushwap lake, which has over 1,000 miles of shoreline. There are about 400 houseboats on that lake. The other lake is Okanagan lake with about 400 miles of shoreline. It has about 100 - 125 houseboats, 100 of which were put on that lake this summer.

Until the early 1980's recreational houseboating was really an activity for retirees, it was an activity for families. Then in the early 1980's there were some favourable tax laws and they related to MURBS (Multiple Unit Residential Buildings). Some entrepreneurs decided that houseboats could qualify under that for tax breaks. They really got into business big. There is a company in Kelowna that manufactures houseboats. They are the ones that have gone to Ontario now. That company has manufactured probably four to five hundred houseboats in the last few years. They are just three young guys in their twenties, and their sales are about 50 million dollars on those houseboats. And with those tax laws and venture capital laws here in B.C. if you buy a houseboat for $75,000 you can recoup 40% in the first year. So it is not a bad investment. You will have a total recovery of your capital over about four or five years. This really spurred this industry and people really jumped into it. Now those 500 houseboats in those two lakes, are surrounded by all kinds of upland uses and foreshore uses, from heavy industrial, sawmills and log storage areas to probably forty to fifty commercial summer resorts on those lakes and many, many, upland residential properties. On Okanagan Lake there are six municipalities. So there is a lot of potential conflict as you can see, when you bring this many recreations into this area.

As the industry grew and they began to manufacture more of these boats there was a tremendous public outcry. What we had to do was to weigh that public outcry against the fact that we had a major industry that was going on here and bringing a lot of money into this province.

This slide shows older houseboats, pretty short, about 25-30 feet and this was the typical vacation: a long stretch of beach, one houseboat on the beach; not much of a problem. They did not go around the lakes bothering people too much. As it grew, you see more and more in the early 1980's congregating on the beaches.

This is the manufacturing plant in Kelowna that produced the 100 houseboats that are on Okanagan Lake this summer. They just mass-produced them. They can crank out two of these a day. Those particular boats are 46 feet long. They come fully equipped: major sound systems, micro-wave ovens, it's no longer the retirees and the young families, their whole marketing strategy with these firms now is aimed at the University Rugby Club, who come equipped for their vacation with two bags of potato chips and a keg of beer each. They jump on this houseboat and they are going to party for a week--Sunday to Sunday. I will show you in a moment how the companies accommodate these guys. What we have here is a shot of Sicamous Narrows, which is a narrows between two lakes in the Sushwap system. It is called the houseboat capital in the world: that is their promotion. You can see the density and the number of houseboats that are in there. It is a small narrows. We have limited development to one side of the narrows because it is just not wide enough for development on both sides. All four to five hundred houseboats on this lake originate from here. They are just stacked up. They take these boats out of the water in the winter. They are stored three high with huge forklifts, because it does freeze up there in the winter.

I talked about conflict. Here is a classic shot with two houseboats and some little guy trying to get by in a canoe. The whole Sushwap lake chain was used by canoeists and that type of get-away-from-it-all recreationist before the advent of the big houseboat. You can see the water slide on the back of the houseboat here. Now what I was talking about. Right over here, there is a huge barge, about 150 feet long and 170 feet wide I guess and with a big dance hall inside of it. It is called a party barge and the marketing scheme is that you rent a houseboat from Sunday to Sunday--this company has a fleet of 140 boats on the lake--Tuesday and Wednesday are fun days. (I guess yot don't have any fun at all the other days.) You show up at the party barge--half the fleet on Tuesday and half on Wednesday. They all moor in this bay called Pete Martin Bay and as part of the marketing package they have Club Med skiing. They have all kinds of water sports: water skiing, para-sailing, jet biking, everything that is going on. At five o'clock they shut that down and a big siren goes off, and they say, "Its party time!" Everybody comes from all the houseboats to this barge for a b.y.o.b. special. They supply all the trimmings. Then they go at it--they used to go at it--until late in the evening. Here are a couple of other shots of it. You can see the congregation of the houseboats all around it with dinghies and boats in the water: everyone is having a pretty good time. Here is a shot of a big raft they have for swimming. Here, away from the barge, is a beach in front of a provincial park, totally dominated by houseboats to the exclusion of others: they are just lined up along the beach. Actually, the safest way to overnight on a house boat is to beach it, and they are geared for that: you just run it up on the beach and back if off the next day. Some of the companies are trying to put out mooring buoys now, but they are not that safe because these are such heavy boats. With three or four boats tied up to one, if a storm comes up, it just drags the thing off down the lake. Here is another shot of houseboats just congregating. Sometimes you will get that rugby club and six or eight other rugby clubs renting houseboats, and they will all just take over a beach.

What happened was that with us trying to deal with this whole thing politically and from a regulatory point of view, we just felt that there would be win-lose situation and I don't think anybody decided who was supposed to win and who was supposed to lose. So our staff started working with the houseboat companies. We appealed to their business sense. Some of them were pretty bright guys. They decided that if they were going to be successful, they were going to have to self-regulate and self-police. So they formed a houseboaters association. They have what they call the Houseboaters Code of Ethics. It is the Nine Commandments, the "thou shalt nots" and "thou shalts" if you are running a houseboat.

We went through a series of issues with them and the main issues that the public was complaining about. Really there was about five or six main issues. One is the beaching of craft in front of upland-owned property. As you have heard, in the province of B.C. most property owners owned the high water mark. In the summer the water starts going down and you have free-use beach right in front of upland property. You can understand that if you own a lakefront cottage or a lakefront home, you don't want a 48 foot houseboat pulling up on your beach for a couple of days. The next issue was noise. These boats were coming with really high-powered sound systems that were incredible: it could just blast you from up to ten miles away, twelve miles away in some cases where we have reports of people being disturbed by noise. A third issue was the safety of the inexperienced boat handlers on the lakes, and the dominating of those beaches, not just pulling up in front of a private beach, but dominating provincial parks and marine parks to the exclusion of anyone else wanting to use them. The fact was, we did not know the saturation point for a lake with houseboats. To let you know how we worked with them and what they came up with: they came up with a code of ethics. They have a two hour training session for their renters now, complete with a audio cassette that they can take with them on the boat. If they have problems they can plug this thing in and find the part they are having the problems with and listen to the instructions again. They test them pretty extensively, as much as you can in two hours. We feel that it is better than trying to regulate them or have a policy on that. They did it on their own and it has really improved the safety factor on the lakes.

On the issue of pollution we found out that all the commercially-owned houseboats did have black-water holding tanks. The problem was that they had plugs in them and the lazy houseboater does not want to go to the pump house station (of which there are not many on a lake with a 1,000 miles of shore line: it is a long day's chug down the lake)--they just pull the plug. So the houseboat companies decided that they would make the plugs inaccessible. So if you are going to let it overflow, it is going to overflow all over you. That change really helped. Next was the grey water--the water from the sinks that was being pumped straight in. All the new houseboats built in the last three years (again from self-regulation, self-policing, and agreement with the association) now have grey-water holding tanks. So nothing goes overboard in those boats and none of them have access from on the boat. They must go back to the marina to pump out. The capacity is about ten to twelve days and they are only rented on a seven-day basis, so that problem is pretty well taken care of.

On the noise situation, the companies put governors on their stereo systems. Rather than to take them out and put new ones in they managed to put a governor on. We thought that was pretty responsible. They took off all outside speakers so the only speakers on the boat were internal speakers.

As far as dominating the beaches and beaching of the craft I believe this is where most of the inroads were made. The houseboat companies with our cooperation identified beaching sites all over both lakes. The companies agreed that they would, by policy, allow their patrons to beach only at those sites, which were all away from privately-held upland and not in provincial parks. They also agreed that they would not allow houseboats to beach in provincial parks. We didn't think that we would get away with that one, but it worked and the province didn't have to do anything about it. The companies just said. "If you want to rent our boat and it is caught in front of a park, we will tow you away and you're gone." The public relations campaign that we worked with on the houseboat companies really worked well. On Okanagan Lake the two companies there contacted every upland owner on that lakeshore, of which I believe there are over a thousand. They contacted them directly, face to face, not just by telephone. They went to see everyone. They hired a team of students for the summer, gave them a handout about these Commandments and what houseboat conduct should be all about. They gave them a twenty-four hour zenith number and said, "If you have problems with a houseboat in front of your property, you call this number. We guarantee two-hour service." Those companies get out there in their boat, they just zoom out and tell the people they must leave. If they don't, they pull the distributor cap and tow them away. I do not think too many people paying $1,400 a week rent will take a risk at that kind of thing. The last issue and probably the most difficult, is how many houseboats should there be on these lakes. Frankly, I have no idea. Of course you have to take what the companies tell you with a grain of salt because they don't want any competition. Unlimited houseboats by them, but no newcomers. By agreement they have decided that nobody puts any new houseboats on those lakes without the association at least reviewing whether there should be or should not be, whether there are sufficient mooring sites, and whether there are sufficient areas for them to overnight throughout the lake chain.

Houseboating has become a big industry. I know that Ontario just has huge problems. I would advise anyone that is dealing with this kind of industry: before you go to regulation and legislation, try to work with these people. They are businessmen: they know that they cannot bite their nose off to spite their face, and that is what they are going to do if they continue with the earlier attitude that we saw in B.C.

British Columbia's Houseboat Industry

HOUSEBOATS, LIVEABOARDS, AND THE PUBLIC TRUST: FLOATING RESIDENTIAL COMMUNITIES IN CALIFORNIA

prepared by Lance Kiley
Director of Land Management
California

SPEAKER'S INTRODUCTION

Lance Kiley has worked for the State of California for twenty-six years. He is presently Director of Land Management, a Department responsible for issuing tenures on State-owned lands. The uses range from marina and commercial development to agriculture and timber harvesting.

Over the years, Lance has found time to become a licensed Land Surveyor, a Civil Engineer and an Attorney.

OUTLINE

I. Terms

    A. Houseboat
    B. Liveaboard - in marinas
    C. Anchorout
    D. Ark

II. Historic Perspective

    A. Cleopatra's barge
    B. Codes of Justinian
    C. English common law
    D. Riverboat traffic - Rhine, Thames, Mississippi

- E. The Public Trust Doctrine in California
  - 1. It's all about access

III. Present Liveaboard Communities

- A. Sausalito - low cost housing in an expensive urban area
  - 1. Waldo Point - well designed, well kept
  - 2. Gates Co-op - mish-mash, trashy, but local color
  - 3. Anchorout - usually disabled vessels
  - 4. Miscellaneous - camper shells on barges, Forbes Island

- B. Willamette and Columbia Rivers
  - 1. Condo communities
  - 2. Commercial traffic - fishing, shipping, etc.

- C. Seattle area - Lakes Union and Washington, etc.
  - 1. Expensive, semi-permanent residences
  - 2. Ownership of waterfront

IV. Use Conflicts and Issues

- A. Historic v. current demand for resource

- B. Who actually owns the water
  - 1. Dockominiums
  - 2. Protection of domain
  - 3. Expectations

- C. Sanitation

- D. Police and fire services - security

- E. Building codes

F. Marina security - there are some true benefits of liveaboards

V. Solution Issues

A. Who should administer these lands?
  1. States/provinces
  2. Local/municipal governments
  3. Regional special purpose districts

B. Trust exercise by sovereign

  1. For terms of years
  2. For specific purposes
  3. Public input - local hearings - who should participate?
  4. Payment for use termination - Should there by any?

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  3. Public input - local hearings - who should participate?
  4. Payment for use termination - Should there by any?
     a. Lawful improvements - is there a taking issue?
     b. Unlawful
     c. Land use permission granted by government
        i) conditional?
  5. Benefit v. cost
     a. To government
     b. To liveaboard

C. Police power regulations

1. Building codes - how enforced?
2. Sanitation codes - pumpout requirement/hookups
3. Police protection
4. Fire protection - can be a critical issue - liability?
5. Insurance and bonding requirements
    a. Is government covered?
    b. Self-insurance?
6. Require self-propulsion?
    a. Probably impractical
7. Require dredged marinas?

VI. Conclusion

There really are no easy answers to houseboat and liveaboard issues; there are only hard questions for public officials to grapple with. The concept of living on the water has been around for at least thousands of years, and will probably be around for thousands more. Now, however, increasing demand for a scarce resource is requiring allocation. Our jobs consist of resolving the conflicts in the quickest, fairest way, consistent with our responsibilities to the public as trustees of their resource.

PRESENTATION

We don't have the houseboat problems that seem prevalent in Canada, but we do have problems with other types of living communities on the water which would probably curl you hair if you saw them.

Maybe I should define a couple of terms we use in California some of which are outmoded but we still use them occasionally. We deal with two different kinds of houseboats. A recreational houseboat is a pontoon-operated vessel which we were showing in the slides here. It is basically a trailer home on top of pontoons that is floated around in the delta region of

California. (The delta, for those of you that have not been there, is a large triangular area interlaced with channels, within the San Fransico Bay region. It lies between Sacramento, San Fransico and the town of Stockton on the southerly end, and there are about 750 navigable miles of channels in and out of that area. It is very heavily used by houseboats, recreational houseboats. We also have recreational houseboats on the Colorado river and in some of the bigger lakes in northern California. There are quite a few substantial man-made lakes in northern California. We also have what we call liveaboards. A liveaboard to us is a sailing vessel or some other type of navigable vessel or power vessel which is designed and built to be taken to sea on a regular basis but which is used as a primary residence by some person, usually residing in a marina inside of a harbour area.

I have seen some recreational houseboats that were campers off pickup trucks mounted on a small barge and I've seen some homes that look like that they probably cost up to $200,000, sitting on fairly substantial barges in communities in San Fransisco Bay.

From a historical perspective, the concept of living on the water is not a really new thing. It has been around for a lot of years. I understand that Cleopatra lived on a barge on the Nile for long periods of time. The Romans had barges that people lived on in some of their waterways, although the waterways themselves were considered highways for the public. Then the English had some barges that people lived on along some of the harbour areas. Further, even today there is a lot of riverboat traffic up and down some of the major European rivers in a form of barge traffic along the Rhine and some of the other big rivers, the Thames and even on the Mississippi River in the United States. People often live on these big barges that move up and down the rivers. We don't have any serious problems with those because they do seem to keep moving, and the residential character of their use is a secondary character rather than the primary motivation for being on the water.

In California we have a fairly highly evolved judgement public trust doctrine. There is nothing much about it in the statutes and there is nothing substantial about it in the consitution, but our judges have, starting at statehood, and especially since the early 1900's, enunciated a fairly comprehensive doctrine of public trust: including the responsiblities of the state as a trustee for stewardship of the use of this property for all of the people; limitations on the kinds of uses that can be made; and guidelines for how conflicts should be resolved when there are conflicts. We have a number of different liveaboard or residential communities, and because of California's dense population, the communities themselves tend to be dense. The biggest one that I know of in California is located in Sausalito, wich is a suburb of San Francisco. It's in an area called Richardson Bay just north of San Francisco. In there there are probably about 2,000 houseboats in a couple of confined communities. The largest of the communities is called Waldo Point Harbour and it's right within in the metropolitan area of Sausalito. Waldo Point is a fairly well organized and somewhat legitimized houseboat community consisting largely again of houses on barges. These are not mobile vessels that were designed to be navigating back and forth. This is a very up-scale operation. People who live there tend to be artistic or they just like to live on the water. They tend to be yuppies from downtown San Francisco with substantial jobs and the ability to live a fairly fine life style that I rather lust after myself on a more or less regular basis. At one time we even had a Deputy Attorney General who lived over in the Waldo Point area. She subsequently moved out, I hope, after some coersion by some of her cohorts in the Attorney General's office.

We have an area right next to the Waldo Point Harbour that is trying to get going, called Gates Co-Op. Gates Co-op is a mish-mash of what most people in the Waldo Point area think are trashy, run-down vessels that are falling apart, bearing little or no sewage facilities. I understand that some of them have wood-burning stoves, it's a complete mish-mash of junky vessels with no visible means of support for either the vessels or the occupants. There are a number of anchorouts right off the same area. There are fairly large numbers of anchorouts, a couple of hundred of them at the last count. The anchorouts are regular vessels which are no longer mobile, and people are using them as low-cost housing. The city fathers of Sausalito at one point in the near past proposed to the State Lands Commission, for whom I work, that the waterfront area be used for their solution for low cost housing. Sausalito exists in Morin County which is probably one of the highest cost communities on the West

Coast in terms of daily cost of living. These people were actually proposing that we take all of their huddled masses and put them out on the water so that we could avoid the cost of subdividing some of the heavily impacted uplands (and bring their hot tubs and that sort of thing down there too). There are other substantial problem communities for us in Santa Barbara, within Santa Barbara Harbour, in San Diego (although San Diego takes care of it's own problems fairly well), and in Humbolt Harbour up in Northern California near the town of Eureka. The largest single houseboat, that I know of, is a rig called Forbes Island. It's a light-weight concrete barge that is approximately 300 feet in length. It is moored in a federal free anchorage in the San Francisco Bay area. We don't have any jurisdiction over that particular anchorage because the federal government condemned us out of there some years ago and bought out the state's interest. This guy is out there at sufferance. He has a grand piano in a salon--it's quite an elaborate structure. He has palm trees growing in his yard, a number of dogs wandering around the premises. It's quite a site to behold. He is trying to sell it right now, I understand, for about $4 million.

There are similar types of problems on the Willamette and Columbia Rivers. My talk is supposed to deal with California only, but I know these things do exist in other parts of the northern states, and also along and around Seattle and Lake Union, Washington, they have some substantial houseboat communities and associated problems.

Historically there really wasn't the demand for the use of these resources by the numbers of people there are now in California. We have about 25 million people right now, and the population is rising rapidly, I don't know at what rate anymore, but it's still rising quite rapidly. We get into a lot of competition for the use of the same properties and we have heated and acrimonious long-range debates over the uses of these kinds of properties. I don't know who is going to come out the winner, ultimately, but the general public owns the properties and they have to have some control over who gets to use these properties.

Esthetics is one of the bigger issues for a lot of areas, because nobody seems to want the ramshackle run-down communities right in front of their upland residences nor even in front of their businesses. Some of the people seem to like the more elaborate houseboat communities. They seem to think they add a local colour. A lot of other people think that any houseboat community is impeding access to the water. I tend to agree with that latter point of view myself. If it is a permanent community, it does seem to detract severely from the access of other people to the waterfront.

We get into problems of who owns the water. We've had some outfits that have gone to the dockominium concept in which they have purported to divide up little chunks of the water space, as opposed to air space, over the top of the bottom of water and they will sell an area of water space for a specific period of time, or at least this is what their proposals have been. They would sell a tenure there for an indefinite period of time or at least something coincident with the term of their primary leasehold. If they have a fifty year lease, they might lease that back to a private party for that purpose. And that party would have the right to occupy that with some sort of a houseboat structure for that period of time. We steadfastly resisted that and it has died a natural death for the time being because it hasn't turned out be economic: they haven't been able to sell them at the prices they were trying to command.

We have noticed, especially in the Sausalito area, that there is a strong tendency of people who live on the water to become very proprietary about that area of water that they occupy. They tend to think that they own it after a very short period of time, usually a couple of years. They start being willing to defend this thing with their lives. In Canada you don't have the misfortune to have a heavily-armed population like we do in California. Every man, woman and child just about, in California, has a gun of some sort or another and carries it with them at all times and is willing to shoot to kill if necessary. And when they become territorial, it becomes a very severe problem for the state as the trustee of these properties to keep these people moving and keep them off balance, and make sure that they don't take this proprietary interest in these lands. We literally have had some shooting wars over in the Sausalito area. We have had people threatened with guns and some shots fired from time to time when people were ordered off or ordered to move around. We've also had the same kinds of problems on the inland waterways.

People's expectations I don't believe should ever be allowed to rise to that level, where they would think they would have ownership. I think that the state as a trustee or the province as a trustee needs to get on these people immediately when they start accumulating in an area: get in at the beginning of the problem, make it known to these people that they a very limited tenure if any at all, that they would have to get out on command, and make sure that they do get out at regular intervals rather than being able to stick to one spot like that.

If they are allowed to stay, the question arises how much should they pay? In most cases people live on the water because it's cheap. They also like the ambiance of the water, but it's basically a cheap way to live. Rents are either zero there or very low for the most part. It's my opinion that as a trustee the operators, or the lessor, should be getting market value, the same as he would get if it was an upland area of comparable utility. I think if somebody wants to live on the water as an amenity (and if they are already there we have to put up with them probably until their homes are gone)--they should be paying whatever fair market value is for that frontage. And that fair market value ought to be compared and contrasted for comparable sales purposes with upland values rather than water values because there really is no sales market on the water. I think they should be paying dearly, really, because people pay dearly to live on the upland adjacent to them.

Sanitation is a big problem with these homes. Very few of them have hook-ups of any kind. And very few of them are able to get hook-ups that they could afford. A lot of them would have to leave rather than hook-up to sanitory facilities.

Police and fire services are a problem. When you have a very congested area with lots of docks running in all different directions, it is very difficult to furnish police and fire protection. They have had some very raucous events, some riotous events in some of these communities and they've caused fires. Some of the structures have been burned down with great loss of property and sometimes a life, and that is a severe problem for both the police and fire services.

Building codes are a serious problem. There are no substantial building codes in effect for these by statute. Local agencies do enforce some building codes with respect to them and to try to control them if they can.

A regular boat marina where you have navigating vessels is one place where you probably can justify liveaboards on a more or less permanent basis. A certain number of liveaboards does add to marina security and allows the people who are in the area to feel secure in their homes and to feel that they are not going to be ripped off by casual people moving through and taking their personal property.

Regarding solutions: I guess I would call our policy one of benign containment. We're trying not to let any new communities of any kind start anywhere in the state. We have a lot of them that arose before we really sat up and took due notice of the problem. We are trying to stop these things right now, let these things die a natural death over a period of time, and hopefully at some point we have no waterfront communities of this type in the State of California. Our Commission doesn't believe in it as trustee, our Attorney General doesn't particularly believe in residential use of waters. They think it's probably illegal in terms of the public trust administration. I have to agree with that concept myself.

We have difficulties over who should administer these lands. In California there are probably at least 20 agencies in any given jurisdiction, including federal, state and local agencies. Administration is difficult. I personally happen to think that with respect to houseboat communities of any kind, whether they be recreational or permanent, the primary responsible party should be the land manager and that land manager is usually a state or provincial government. They should if they can enlist the support and cooperation of the local governments to help to administer the guidelines, but I think the guidelines themselves should come out of the state or provincial government.

We have a device in California that we've used effectively to limit areas where these things can go called a trust exercise. It's a more or less formal activity whereby the State Lands Commission holds a public hearing in an area. It's an announced public hearing. We conduct the hearing and take in input from all the affected parties in the local area. It's open to the general public. We usually get a lot of input from special interest groups like the Sierra Club, nature conservancies, boat owners' associations and that sort of thing. These people can tell us what they want to have done with this property. We take testimony, we draft up a report, we circulate the report again for further comment, and then we come up with a policy or recommended policy for our commission. Most often this trust exercise has been for purposes of open space, or for some fish and game reason, like preservation of spawning grounds. We have preserved some substantial areas in San Francisco Bay by exercising this. The advantage of this process, and it's never been challenged in court yet, the advantage of it is that it doesn't require any compensation for anybody if there happen to be some rights in that area which may pre-exist. Because we are really not doing anything to those people other than stopping it where it is right now and preserving it for public trust purposes. The state of California has that right under the court cases that we work. One of the problems with trust exercises is that sometimes we have to weigh the benefits and the costs. It may cost more money to do a trust exercise especially if we are ultimately held liable to pay for improvements that may exist. If we decide to exercise the trust on an approved parcel, that has, say, a substantial building on it for some reason, and again our commission has the right to do that, we may by statute have the obligation to pay for the lawfully erected improvements on that property. In each case we would have to weigh the benefits and the detriments of that particular situation before we would be able to determine whether the overall transaction would be in the public interest.

Police power regulations are a little more difficult to work with for us because we are not a police power agency. Building regulations to the degree that they have to be enforced in these communities really almost have to be enforced by local agencies. We are not prepared, we are not qualified to do that kind of work. So we specifically do rely on local agencies to take care of that for us. The same is true for sanition codes although we do, on our new leasing policy, require any of these types of vessels that happen to be in the water or any of these types of residences that happen to be in the water, to have permanent hook-ups to some sort of upland treatment facility. We don't authorize anybody to be out there at all without the permanent hook-ups unless they are strictly a recreational boat, in which case they can have holding tanks and pump-outs. Police and fire protection are a severe problem. The big question for us as the land manager there is liability. If something happens on the water and a house burns down or somebody is murdered on the water, we may be liable if we haven't taken proper precautions. And yet we are not a police agency, we are not a fire protection agency, so we are somewhat powerless to deal with those issues. We again rely on local agencies for their help dealing with those things.

Insurance and bonding requirements are a problem. If a houseboat is abandoned and become a derelict structure (and that does happen a lot specially in the anchorout communities), how do you get the boat out of there? And should the public have to pay? I don't believe so, but it's very difficult to require a bond, from a lot of these people. It's very difficult to determine what kind of a bond, and how much it should be. We've investigated pooling--some sort of a pooling system so that everyone paid into a common fund. We haven't been able to get that off the ground yet, but I think that ultimately this may be the resolution we come up with.

Insurance is another severe problem. We have to require that we are an additional insured on all the insurance policies for these devices. We are finding increasing resistance, on the part of the insurance companies, to naming us as an additional insured. In the case of most of the recreational houseboats, we do require that they be self propelled and that they move periodically. But in some of the heavily impacted communities, like around Sausalito, that is impractical and it will never work. We also have thought about the possibility of requiring these things to exist only in dredged marinas, inland marinas that we wouldn't have any jurisdiction over in the first place because they were dredged into private properties. There really isn't enough room in most of the populated areas to do this dredging anyway, so that becomes an impractical solution.

In conclusion, what we found is that there really aren't any easy answers to any of these questions. There are just a lot of really severe problems we are grappling with. Because of our population density we are probably going to be grappling with more of them sooner than most of the communities up here in the northwest, or in most of the other states. As we grapple with them I hope to keep in contact with all of you because we would like to pick your brains and maybe have you pick ours from time to time, and find out how to deal with these specific things. They will arise in your communities eventually, with population, and they will cause you problems.

FLOATING HOMES - AN IDAHO PERSPECTIVE

presented by
Lance Nielsen, Chief
Bureau of Navigable Waters
Idaho

SPEAKER'S INTRODUCTION

Lance Nielsen is presently employed as Chief of the Bureau of Navigable Waters in the state of Idaho. He acquired a Bachelor of Science in Forest Resource Management in 1977 and has spent considerable time in the management of rural lands in Idaho. In his current position, he is responsible for developing long-range plans and policy for appropriate waterway uses while ensuring the protection of water quality, fish and wildlife habitat and navigational safety.

SUMMARY

Idaho's early development centered around the mining and timber industries. Trees were cut in the forest, transported down rivers and across lakes to the mills and cut into ties for use in the mines. Floating structures were initially built by the lumberjacks and included everything from cook shacks to bunkhouses. These floating structures were a functional and integral part of the lumber industry until the 1950's and 1960's when the log drives became less frequent.

We assume these floating structures envolved into floating cabins during the 1940's to 1950's. Recreational boating increased after World War II as did the increase in leisure time. Floating homes were an inexpensive method of having a cabin "on the lake".

Float home colonies developed around northern Idaho lakes. Many float homes started as boat garages with modest sleeping quarters and eventually

enlarged into substantial habitations. In Idaho, when we speak about float homes we are referring to cabins built on floating platforms. The floatation usually consists of cured cedar logs. These structures are NOT licensed vessels and typically are permanently moored in one location. Kayots, other brands of pontoon boats, and large liveaboard motor cruisers and sailboats are not considered floating homes at this time.

Concern arose in the early 1970's about the lack of sanitary facilities for the float home colonies. No colonies had central collection facilities for septic and grey water wastes, so the vast majority of wastes ended up in the waterways. Public awareness of environmental quality was focusing nationwide at this time, and float homes were identified as one contributor to water quality degradation. Sanitation problems have never been completely solved in these colonies.

The Idaho Legislature passed the Lake Protection Act in 1974 that effectively placed a moratorium on the building of new float homes. Furthermore, it practically eliminated the possiblity of relocating the structures from their 1974 locations. Float homes have subsequently become a very limited commodity within our borders.

There is a romantic appeal to living "on the water". The sights, motions, smells and sounds are unique. Recreational opportunities are literally right outside your door. There is a small but growing allure to the over-the-water lifestyle these float homes offer.

The present status of Idaho float homes is that only two large forty unit colonies exist. Several small six to ten unit colonies, as well as individual units, are scattered around northern Idaho lakes. No functional central sewer collection facilities have been built, so incinerator toilets are widely used. The majority of these structures are used as summer cabins and only a handful are utilized as primary residences.

The future of Idaho float homes is uncertain. They are not water-dependent uses and their continued existence is not encouraged. Sovereign land leasing policies are being developed with the intent of compensating the public for the interference these non-water-dependent facilities have on public trust uses and resources.

In summary, float homes have been with us for many years and will continue to be with us for many years to come. The problems of sanitation and sovereign land rent must be dealt with, but they are problems with solutions. Float homes will probably become a valuable commodity to the small cult of people who are drawn to a lifestyle that includes living over the water. Sovereign land managers will have to address the impacts and appropriateness of float homes.

PRESENTATION

First of all, I'd like every one to scale down their perspective and think of inland waters. There are only three representatives at this conference who are in that position: myself, the State of Utah and the province of Saskatchewan. I believe everyone else does have coastal waters. As a result you generally have far larger mileage of shoreline and acres of lands to manage. What we have in Idaho is one seaport in the town of Louiston. It's approximately 400 miles from the main ocean, up the Snake River. There is a grain terminal at that site. We have 2,000 miles of navigable rivers and about 300,000 acres of navigable water in the form of lakes.

Most of the populated part of our state has a very limited access to waterways and their demands for recreation are growing. Our program is very small when compared to coastal areas but the impacts, especially of float homes, and the very limited resources we do have are very substantial from our stand point. I've heard terms used just recently by John Thompson and Lance Kiley. John used the term benign neglect in their approach to houseboat and houseboat management. Lance used the term benign neglect. Idaho just shrugs its shoulders and tries to figure out what we might possibly do.

Let me give an historical perspective on how things came to be as far as float homes are concerned in Idaho. Mining and timber of course were the industries that settled our state and the rivers and the lakes were the highways and the major source of transportation.

Timbers were needed in the mines and log drives brought logs, from whereever the logging occurred, down the rivers and down the lakes to the mills which were oftentimes located a very far distance from the source of the actual stumpage. The lumberjacks built cook-shacks, wickeups, bunkhouses all sorts of floating support facilities for their activities so that they could essentially live on the water when these log drives came down to the mills in the spring.

In the 40's and 50's when the log drives essentially dried up we saw a conversion of a lot of these floating support structures into everything from boat garages to actual habitations. When I am speaking about a float home, my perspective in Idaho is that it is essentially a home built usually on cedar float logs, it's not a vessels. Foat homes are very difficult to move; they are typically put in a stationary spot and habitated typically on a intermittent basis. These also include a few still-houses very similar to the ones that we saw down in Key Biscayne last year. However, they are typically of a much more modest stature than the ones we saw in Florida.

Float homes typically developed in colonies and there were neighborhoods of anywhere from six float homes to as many as 40 to 50. These were all built adjacent to areas where the float home owners did not own the adjacent upland property. I think most of the float home owners pretty much viewed themselves as modern-day homesteaders. When they got out onto the waterways they figured it was pretty much open territory that was available to anyone who got there first. There was a spurt of these float homes in the 50's and things built up to the point that Idaho realized that there was a concern developing in our limited waterway resources in the form of proliferating float homes and the problems associated with those.

The Lake Protection Act was passed in 1974 and that limited and placed a moratorium on the building of any new float homes. To my knowledge there have not been any float homes built since 1974. However, having myself and one other field person to monitor this sort of thing, they very well could be pulling some tricks behind my back at this very moment. The Lake Protection Act specifically sets standards for the relocation of float homes in addition to the fact that they put a moratorium on building new ones. It required on-shore disposal of all septic waste, it required a lease of sovereign land from the Department of Lands, and it also said that you had to own the upland property adjacent to where that float homes was owned. Since 1974 we have had only one float home relocated out of a total of roughly 150 float homes in the northern part of the state.

The result of the state's actions have essentially made the float homes a very scarce commodity and in many cases very valuable. The management concerns that we have with this scarce commodity, which is being marketed many times in a very fraudulent method, are that none of the float homes right now have a essential collection facility. Therefore, we can assume that virtually all the grey and black water does go over the edge and there is not much of anything that we have been able to do about that. Most of the float homes are located in sheltered fairly poorly flushed bays and there is a tend toward utrification of those bays as a direct result of the float home communities.

Public demand for clean water is certainly growing in Idaho. Tourism is one of our strongest industries right now with the decline of mining and timber. Public awareness and demand for clean water and equality experience when they get out onto these waterways to recreate has grown to the point that we can't ignore the float homes too much longer. There is also the concern certainly that float home owners have a very proprietary interest in their own mind of the lands that they occupy. Many of them have been at the same site for 25-30 years with at least tacit approval of my agency. That's where we get into the benign neglect. Unfortunately we are not talking about a benign situation at this point.

Initially these sites were very inexpensive. It was a cheap way to have your house literally on the lake. It didn't require purchase of expensive upland property. Now that there is that concern about water quality, what we find is that there have been fly-by-night people coming in selling incinerator toilets. I don't know if any of you had experience with incinerator toilets, but they are rather melodorous, they typically don't function very well, they are the sort of thing that has to be used on a relatively frequent basis or they don't work, and my experience has been that I certainly wouldn't want to use one and I certainly couldn't see an individual having one of those located in their home. Nonetheless, that is the best alternative that exists today.

Our present status is that we have two major colonies. One of them is in a very deep bay that is roughly 800 feet deep on the southern end of Lake Pendoreille. It has no central sewage collection system, but they operate by the theory that whoever has the longest pipes can get away with the most amount of pollution. Most of these facilities are still seasonal residences but there is certainly a lifestyle associated with float home occupancy that is becoming very desirable to a wealthy segment of our population who has money available for a second residence. There is a romantic appeal to literally having your house on the lake that has the emotions, sounds, sights, smells or whatever-not that you get living on the water. It's an exclusive opportunity, as I say it is very limited; there are less than 150 of these state-wide. At their door step these folks have virtually any sort of water recreation that they might want. It is a colourful lifestyle. It is the sort of thing where right now people are attempting to convey these away because Idaho is such a small state. We do have close contact with realtors and when we do deal through professional realtors, typically, we can inform those folks we meet in realtor associations that fraudulent representation of sovereign lands will certainly net them problems and put them in a potentially liable situation.

Float homes are certainly going to be with us for a long time. In my seven years of working with this I've only been able to convince one individual to burn theirs down. I provided them a spot to do it and, lo and behold, they surprised me. The sheriff called me up one day and told me there was a big bonfire at the south end of Coeur-d'Alene Lake. I went out there and, lo and behold, the gentleman had actually burned it. There is only one case of that that has ever happened and I'm sure it won't happen again because people who do have them realize it is a limited and valuable commodity.

The big question for us right now is how much rent should people pay. There has only been one relocation of a float home since 1974. There is in fact only one float home in the state under lease. They pay $100 annually. That was set by Land Board policy back in the early 70's, roughly the same time as the Lake Protection Act was passed.

Our big concern of course is proper compensation for the public of this exclusive use of public trust lands. There is a very strong individualistic attitude in Idaho at this time. People very strongly resist planning and zoning of any sort. They do consider the waterways to be the last frontier and they don't really feel that there should be any restrictions put on them until it comes to the point where their own individual rights, that they perceive in their perceived proprietary interest in that particular location, are affected.

We see a real problem with these float homes. We don't know exactly what direction they will take. We do know that many of them are being rebuilt. We do have records and photographs of what exists. As long as they keep the exterior dimensions of their float home as they have been for many years in the past, we are not regulating them. As I think was mentioned earlier the lands function in many of our states and provinces is by default, even though in the state of Idaho there are eight agencies that work with water politics, fisheries, things of that nature. We need to rely on those folks to provide us with the expertise to analyze what is going on. But ultimately I think it's our proprietary interest in those lands that will guide what we do. I think there is a limited possiblity if not an impossibility of ever eliminating any of these float homes. Our only hope is that John Thompson does not develop an aggressive marketing program for his boathouses and send them down to Coeur-d'Alene Lake, because they are licensed vessels and we have absolutely no control of them at all.

WORKSHOP 5 - INFLUENCE OF UPLAND OWNERS ON SUBMERGED LAND MANAGEMENT

1. Legal Rights and Obligations of Upland Owners in New Jersey (William Andersen)
2. Recognition of Riparian Rights in B.C. Land Management (Geoff Moyse)
3. Natural Boundaries and the Torrens Title System (Don Duffy)
4. Riparian Land Owners Rights - Idaho - (Lance Nielsen)

WORKSHOP 5

INFLUENCE OF UPLAND OWNERS ON SUBMERGED LAND MANAGEMENT

Chairperson: Daniel McLawhorn

Daniel McLawhorn is a special Deputy Attorney General with the State of North Carolina. In this position he is a member of the Environmental Protection Section, and has a wide range of duties pertinent to this workshop.

Daniel is counsel to the Coastal Resources Commission and the Division of Coastal Management, but as well is responsible for resolution of an average of 10,000 private citizen claims to coastal submerged lands.

RIPARIAN LAW

prepared by William Andersen
Deputy Attorney General
New Jersey

SPEAKER'S INTRODUCTION

Bill Andersen is the Deputy Attorney General from the state of New Jersey. He has represented the Tidelands Resource Council for the past five years. That council supervises the sale and leasing of present and former intertidal and submerged lands in the state of New Jersey.

Bill had done a presentation which is very general in nature and defines the terms that many people use in describing riparian law.

SUMMARY

The legal rights and obligations of upland owners. I've tried to survey the law with respect to this matter in as many states and in as many Canadian provinces as I could. I am attempting to give that information in a general way for all the jurisdictions I could locate. The upland, the term that is used and used exclusively in our rarified area, is the shore area immediately landward of the natural high water line in most of the fifty states that are involved (sixteen of them I have located), and the mean low water line in some six states. The synonyms that you'll see in some of the literature are upland owner and littoral owner. The term that is often used and used less accurately is the term riparian owner. Some of the cases, however, use all those terms to mean exactly the same thing.

Real property law. You will find if you read case law and the statutes that it is fairly uniform over a very long period of time. Real property law in the English system tends to be very static, so that people find that it is very predictable when they buy and sell real property. The major rights that are involved are fairly few. The major right that a person has is the right to accretion. The natural slow and imperceptable addition to the land in front of your property is yours. Your boundary with the state or the province involved is not a boundary that is fixed some time in the past. There is therefore a no-man's-land between your property and the property of the state or province. This is what is sometimes referred to in the cases as ambulatory. The change however, must be natural. If you fill that property in and bulkhead it offshore of, say, the mean high water line, that new property line is not yours. That is not accretion, that is artifical. It is the converse of erosion, which I will talk about in just a moment. As long as accretion takes place you own the dry land that comes as a result. The correlative concept is the concept of avulsion: that is the sudden perceptible addition or loss of land to your property. If you have a storm that comes along and washes away fifty feet of land that you thought was yours, you have the opportunity within a reasonable period of time in most jurisdictions, subject to permit requirements, to replace that land to the point that it was at before the storm took place.

Permitting requirements often severely limit that right. In fact, in New Jersey you would probably lose it. But as a matter of real property law, you have that right. Reliction is a concept that often turns up as a right of riparian owners. If the land lowers because it has been dried out over periods of time and sinks, and then refills, so that you have land that is now covered with water, you have the right again, in a reasonable period of time, to reclaim that land. Otherwise title will change.

Probably the most important right, considering the topics that we have talked about so far and will continue to be talking about through the rest of the conference, is the right of access and the right to purchase or lease lands outshore of your property. In New Jersey that is referred to as a qualified peremptory right of access to navigable water and a qualified peremptory right to purchase or lease lands outshore of your property. It is important to note that both of these rights would be subject in some jurisdictions, a growing number of jurisdictions thankfully, to the public trust doctrine and the public interest in access in general. When I speak of a right being qualified, I mean that it would be subject to the state's public use of that property for some other purpose, or the public's use of that property for some other purpose. When I speak of it as being peremptory, what I mean is that the state, a person who has riparian rights, would have the right of first refusal of the property that is being sold.

In New Jersey the situation might develop whereby a marina operator may wish to expand his marina and he cannot expand it out any further offshore because he is sitting up against the United States Corps of Engineers' pierhead line. He therefore seeks to expand his marina downshore and upshore in front of other people's upland ownership. In New Jersey he would be permitted to do that. He would be permitted to block access, only if he received the permission of the adjacent upland owners who he was giving a problem of access to and barring their riparian rights. If he did not get that consent (and of course that would be a very difficult negotiation session to take place, it might be very expensive for the marina operator), and the state decided that for some other purpose that would still have to be done, or could be done by a marina operator, there is a loss that leads to a difficult legal situation. The property owner would have the right to have decided by a judge and a jury how much his loss of the riparian right is worth. The state by giving a grant to this adjacent marina operator for his marina in front of another property would have to pay the adjacent property owner that money. Of course we would design it so that money would have to come straight from the marina operator. That is a procedure that is set up. It has been rarely used in New Jersey because the adjacent property owners are smart enough to realize they don't have to charge discounts. They can charge full fair market value and then some, and it becomes very expensive for marinas to operate that way.

In many of the states there is a qualified peremptory right to construct and maintain piers, docks and wharves. The free use concept was talked about yesterday, and that is what comes in here. A person's riparian right on this sometimes in some states is thought of to include single family residential property, docks for free, without payment to the state. That is not considered an occupation of state land but instead considered a right by the adjacent property owners. The state of New Jersey does not consider that in that way. We charge everybody that we can find.

All of this is subject to increasing environmental regulations. We found that the Coastal Zone Management Act has provided us with the staff and the analysis and technical assistance we need in order to make sure that the proper environmental laws are taken into account. For example, just to float back to floating homes this morning, we feel that the shading requirement, that the shading accompaniment of floating homes, and the fact that they are water-dependent, makes floating homes a very bad thing from an environmental standpoint. They are just flat-out prohibited in New Jersey and we have taken every step we can to prevent them from coming in. We are of the Lance Kiley school of riparian law.

Major obligations of riparian ownership. Just as you have a right to accretion, you suffer the loss of erosion. The gradual interperceptible loss of your land over time is something you can prevent only by bulkheading in most states upland of the mean high water line--upland of the mean lower water line in some states. It is the converse of accretion and you should readily understand the symmetry of those two concepts. It is referred to as the doctrine of equal compensation. If you understand the symmetry you understand the concept.

I would like to move from those major areas into the doctrine of the public trust and public access. The rights of riparian owners in a growing number of states are becoming subject to public access requirements under the public trust doctrine. There is a tremendous pressure in some of the states--the highly populated states (New Jersey is the most densely populated state in the United States of America. It could fit inside of British Columbia more times than I want to count. And we have a larger population than many provinces, maybe all of them put together.)--and because of that, we have a tremendous impact on our shore area. After all, the shore is only a small part of the state and everybody wants to be there. There is more money available generally for vacation homes. There is more discretionary and investment income. There is more interest in tax shelters--something that is even preserved under the non-tax shelter law of 1986. There is greater perceived value in vacation homes and shore homes. There is an increase in the number of retired persons. Retired persons are living longer, and they are staying there. There is an increase in the population in general, legal and illegal. There is an increase in the number of people who appreciate living along the shore. There is an increase in the number of people recently buying along the shore because they don't want to go to Europe. There is a better road system in many of the areas that are near to the shore, so that people can get there faster. We found that there is along the coastal areas of the United States a generally more prosperous economy that the entire United States is not participating in. That generally more prosperous economy along the coast means that there is more money pushing more money pushing less land along the coast, and that economy is generally benefitting the shore areas. At the same time however, there is a lot of people who can't or don't live there. In addition to the residential pressures on those people, there is also non-residential pressures, so that we have an increase in commerce, a tremendous trade deficit, which means that we are doing a tremendous amount of trade. There are increases in many areas of the country for shipping purposes, a tremendous increase in the number of marinas, of floating homes and houseboats (and such are argued to us as being the only way the marinas can make money), and yet marinas are packed. The only place that marinas are going, is to being converted into condos. We find in some places expanding defense needs. The most recent example of that is the multi-basing of the Navy, so it is not only in one spot but all around the country.

All those pressures are moved against the other major concomitant that is being hit, and that is the public's interest in its tidelands. There are increasing population needs. When tax monies are being used to replenish beaches, there is a very strong argument that all the people should be able to get there. We find that more and more people are aware of the public trust doctrine I think that you will find, state to state around the nation, that property rights in areas adjacent to the shore are under attack, and that when there is no reasonable alternative, the public trust doctrine is going to prevail.

Please be aware of that when you are dealing with riparian owners, and don't let them think that they have an absolute propietary right to that beach area, or an absolute proprietary right to that land adjacent to the water. If you need it as a public official, and you have to provide for all the public of your province or of the state, make sure that you are aware that you have rights on your side, and you should not let them buffalo you.

NEW JERSEY TIDELANDS CONVEYANCE POLICIES

Applicable to intertidal and tidal submerged land includes artifically filled lands which were once tidal or intertidal.

General Policies Relating to Fee Simple Conveyances

1. State claims artificially filled tidal or intertidal lands even if filling occurred as early as 1830's.
2. State will convey such lands in fee to the records title owner.
3. If record title owner did the filling (rare) then removal and restoration or mitigation required instead.
4. Usually record title owner purchased for full value without knowledge of the State's possible claim. If so, sale will be for 25% to 60% of current fair market value of the land only, to approximate unfilled value of claimed area ("residual land value").
5. Purchasers with knowledge, as those with title insurance coverage pay current fair market value (no discount).
6. Values are set using "unit value", i.e. value of entire lot x % of lot claimed = base value of claimed area.
7. Values may be reduced for any litigation risk connected with proving State's claim. The State has the burden of proof.
8. Most claims are settled, not litigated. The typical price is 25% of the fair market value of the claimed area.

Sales of Presently Tidal Submerged Lands

1. If claim area is in artifical lagoon, State will sell in fee, usually for 15% to 25% of fair market value of adjacent land, i.e.:

   upland value x claim area x unfilled discount = cost
   $/S.F. x S.F. x 25% = $

2. If claim area is naturally tide flowed and submerged, State will sell rarely, and only if concessions related to environment or public access are made.

3. When income producing property is involved (i.e., marinas) income approach to value also used.

4. In any case, no filling of presently submerged or intertidal land is permitted, and deed so states.

5. Owner must receive approval.

6. If owner wishes to fill tidal submerged land (rare) the projected use must be water dependent, and he or she must mitigate 1:1 for land lost in the same estuary, and pay fair market value.

Leases of Presently Tidal Submerged Lands

1. There is no right to wharf out, or erect docks or piers in State lands without payment. Bulkheads can be built at or above the mean high water line without payment to the State if the land is not artificially filled.

2. Bulkheads may not be constructed more than 18" into submerged lands, and then only if to protect bulkhead already in place. Payment must be made.

3. Off single family residential hommes, land area necessary for piers is leased at 1.5% of upland unit value per year. Term is 10 years initially, 5 years thereafter.

4. Multi-family (i.e. condominiums, generally) or commercial or industrial are charged 2.5% of upland unit value per year. Term is 5 years, initially, and 5 years thereafter.

5. Long term leases are possible, on request for periods up to 20 years, with 5 year price adjustments.

In General

1. There is no "free use" policy. To the contrary all occupations require payment.

2. Even other State Agencies, and the Council's own Department, and municipalities must compensate the State.

3. Net funds go to School Fund.

4. Mapping/claiming former/present tidal lands, at cost of $12 million (U.S.) is nearly complete, with 1632 maps to be published by end of seven years (on time and under budget).

Leases of Presently Tidal Lands for Marinas

1. General leasing policies apply.

2. Income approach to fair market value used at times.

3. Lease is set at 10% of net annual income.

Aquaculture

1. No properties under lease for aquaculture yet.

Moorings

1. Widespread, but policy not yet formulated.

2. Policing any change may be a problem.

Floating Home/Restaurants

1. Not a water dependent use and therefore not permitted.

Leases/Sales of Present/Former Tidal/Submerged Land for Industrial/Commercial Uses

1. Policies relating to sales and leases apply.

2. When income approach to value can be used, it will be considered.

Leases for Communication Lines

1. A few such leases exist.

2. There is a one time charge.

3. Difficult to value.

Admeasurement of Riparian Rights (rare)

1. Statutes provide State must give upland owner 6 months notice and right of first refusal before State can sell or lease to non upland owner.

2. State must also pay upland owner for loss of riparian rights.

3. State therefore collects this amount from grantee/lessee at time of conveyance.

Legal Rights and Obligations of Upland Owners

A. Upland: The shore area immediately landward of the natural highwater line in most States (16) and the mean low water line in some States (6) or the shore area adjacent to navigable water in inland States. Synonyms: "upland owner" and "littoral owner". Less accuratley: "riparian owner".

B. A matter of real property law: tends to be static in order to be predictable.

C. Major Rights

1. Accretion: gradual, imperceptible addition of sand, sediment or other material (collectively, "alluvien"). Must be natural. The dry land increases in size. Converse of erosion. Changes title from State to upland owner.

2. Avulsion: sudden, perceptible change (addition or loss) of alluvion. Natural (by storm) or artificial (by filling or lagooning). Boundaries freeze. No change of title. After storm damage, property owner can reclaim (fill) out to former mean high or low water and bulkhead within a reasonable time, subject to permits.

3. Reliction: gradual, imperceptible lowering of the land level, raising the water level. Increases the dry land-accretion. Changes title from State to upland owner.

4. Qualified pre-emptory right of access to navigable water.

   Qualified pre-emptory right to purchase or lease outshore of his or her property.

   (a) both subordinate to public right of access

   (b) both subordinate to public trust interests generally.

5. Qualified pre-emptory right to construct and maintain docks, piers and wharves.

(a) **In some States, without payment to the State for the occupation. Others, with payment at fair market value or reduced rate or by formula.**

(b) Increasingly subject to environmental regulation under C.Z.M.A. laws.

(c) Also subject to navigation requirements of the public and public trust doctrine.

D. Major Obligations

1. Erosion: gradual, imperceptible loss of alluvion. Must be natural. Converse of accretion. The dryland decreases in size. Changes title from the upland owner to the State.

2. Public Access under the public trust doctrine to tidal submerged and intertidal lands for navigation, commerce, fishing, recreation regardless of the paper ownership of the adjacent lands.

   (a) Great pressure for residential development along the Coast recently.

      (1) more money available generally for vacation homes.

      (2) more discretionary/investment money available.

      (3) more interest in tax shelters, even under the 1986 Code.

      (4) greater percieved value/appreciation in vacation homes.

      (5) increase in number of retired persons, and those retired persons living longer.

      (6) increase in population in general.

(7) increase in number of people who appreciate advantages of living along the shore (fresh air, beauty, swimming, fishing, boating, surfing, recreation for all age groups).

(8) recent increase in home bound vacations because of terrorism and weakness of the dollar.

(9) better road systems (interstates) permits shorter travel times.

(10) prosperous economy in United States Coastal States increases property values there generally, and shore areas participate in that success.

(b) Pressure for non-residential development also increasing:

(1) increases in international shipping eg. autos, oil, steel, many manufactured goods.

(2) marina development is expanding to accommodate increasing boating population.

(3) expanding defense needs, eg. multi-basing of Navy fleet.

On the Other Hand

(c) Increases pressure for public access to beaches and shore-front.

(1) Increasing population needs access at reasonable cost for recreation.

(2) When tax funds are used for shore protection, and beach replenishment, this increases pressure to open beaches to public who pay the taxes.

(3) Increased awareness among environmentalists of public trust doctrine.

(4) CZMA funds provide technical support for planning for energy facilities, shoreline erosion protection and growth management.

As a Result

Property rights in restricted sandy beaches are suspect

Especially in areas where there is no reasonable alternative; reasonable alternative.

Especially if there has been a tradition of an open beach.

Especially in areas under great development/population pressure.

RECOGNITION OF RIPARIAN/LITTORAL RIGHTS IN BRITISH COLUMBIA LAND MANAGEMENT

prepared by Geoff Moyse
Policy Analyst, Ministry of Forests and Lands
British Columbia

SPEAKER'S INTRODUCTION

Geoff Moyse is presently enrolled in Bachelor of Law program at the University of Victoria. He has completed a Master of Arts Degree in resource geography.

Geoff has worked in timber managment, regional land planning and land policy analysis for the B.C. government. He worked in B.C. Lands until recently as a policy analyst and assisted in the development of the aquaculture policy for the ministry.

SUMMARY

The ownership of property located adjacent to a watercourse or waterbody has provided the property owner certain riparian/littoral rights under Common law. In British Columbia three rights are recognized:

1. Protection of Land - the right to protect waterfront property from erosion by constructing improvements;
2. Accretion - the right to claim material that has accreted naturally and imperceptibly to the shoreline;
3. Ingress/Egress - the right to unimpeded access to and from every part of the waterfront.

The Ministry of Forests and Lands administers and establishes policy for the use of aquatic Crown lands. These rights must be taken into consideration where the upland is privately held.

The right of protection of land by the use of fill or improvements is not authorized when such activity would impinge on the right of access for the adjacent property or on the public right of navigation. Foreshore tenure could be issued if the consent of the affected adjacent land owner was obtained.

The accumulation of material on the shoreline can occur as a result of many different circumstances. Each case is dealt with individually on the basis of legal opinion, and provisions of the Land Title Act and Land Title.

Inquiry Act

The right of ingress/egress is paramount when administering foreshore and offshore tenures. This right poses the greatest challenge to the Ministry in administering tenures.

In short, where a tenure involving improvements abuts or covers part of the foreshore, the written consent of the adjacent upland owner must be obtained before his access can be impeded. Where the tenure is to be located nearshore or offshore, consent of the upland owner may not have to be obtained, as long as the tenure is located in such a way that access is not impeded. Generally, this means leaving room for a boat of approximately 40 ft. to maneuver and navigate freely to every point on the foreshore adjacent to the upland property.

The inherent problem with upland owner consent is that it is not binding on successor owners and, therefore, may be withdrawn in the future. The Ministry presently is examining options for dealing with the access/consent problem.

Four proposals have been suggested in this regard:

1. Revise the tenure area so as to avoid conflict with access;
2. Register the owner's consent against the title of the upland thereby ensuring consent "runs with the land;"
3. Obtain ownership and riparian/littoral rights for the Crown by purchase of the immediate shoreland;
4. Abrogate the right of access by legislation.

Written consent could still be sought for tenures that are temporary and/or of a minor development nature.

PRESENTATION

Types of Riparian/Littoral Rights

Historically, there have been six fundamental rights which have been associated with the ownership of waterfront property:

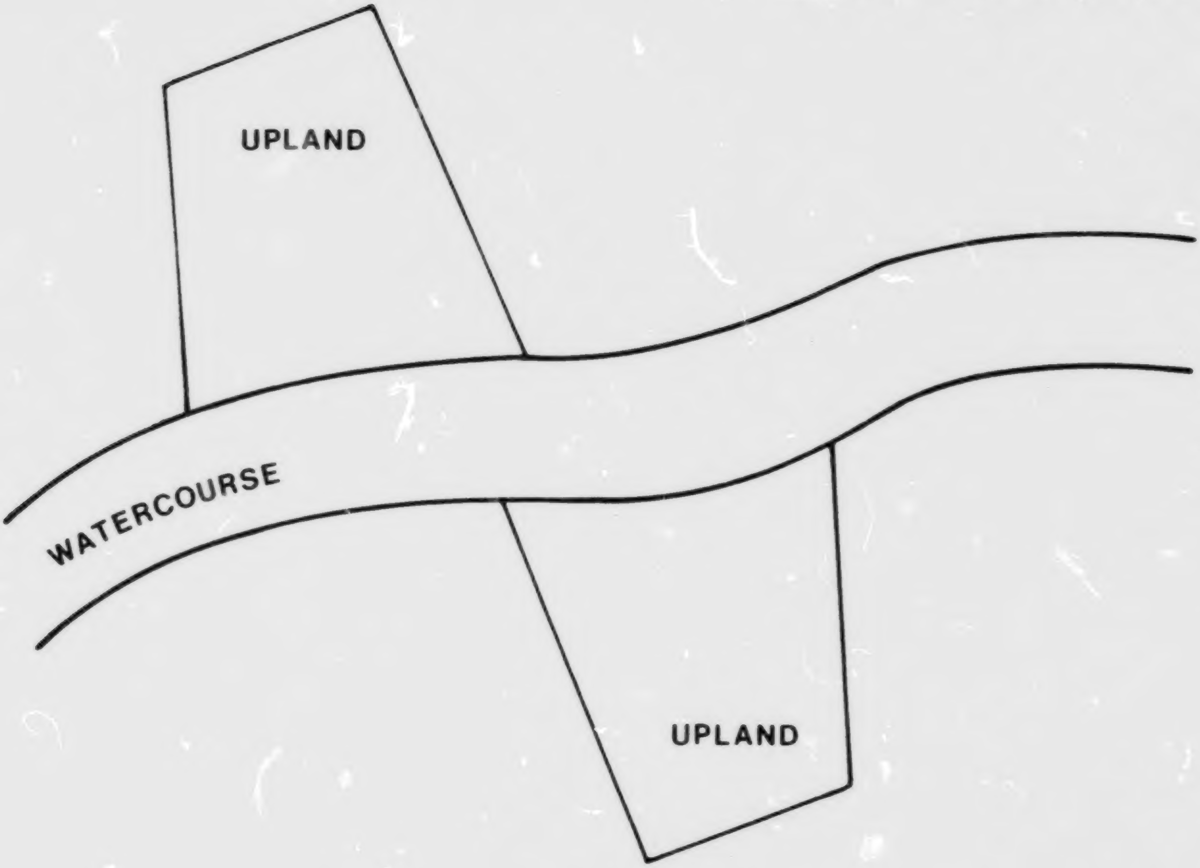
1. The Right to Use Water for Domestic Purposes

   The original fundamental riparian right was a right to use water in a river or stream for domestic purposes. Usually expressed as the right to water of undiminished quality and quantity.

2. Ad Medium Filum Aquae

   Extension of the sphere of "control" or "influence" of waterfront ownership out into the middle of an adjacent waterbody. Literally, "to the middle thread of the stream".

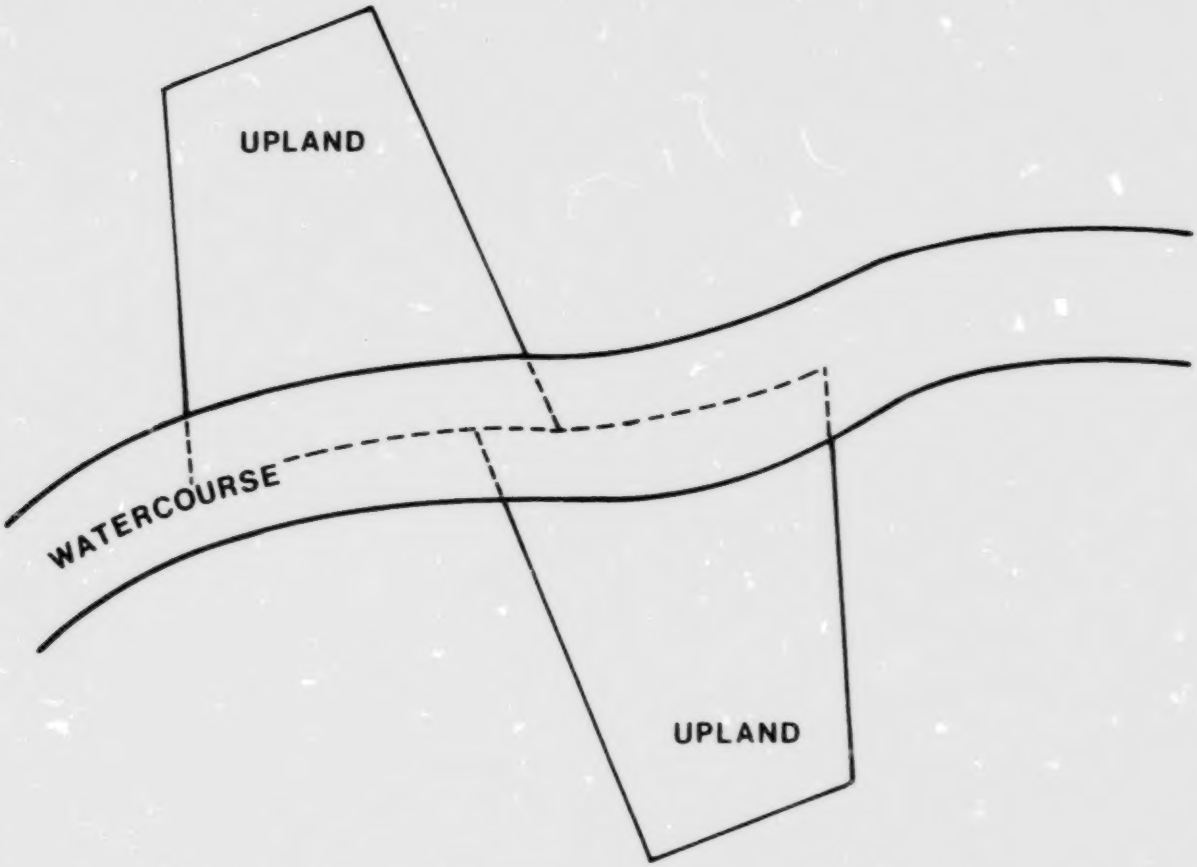
—NO LONGER A RIGHT IN B.C.


UPLAND
WATERCOURSE
UPLAND

① THE RIGHT TO WATER FLOW OF UNDIMINISHED QUALITY AND QUANTITY

- ABROGATED BY THE LAND ACT (1884) WHICH INTRODUCED WATER LICENCING.

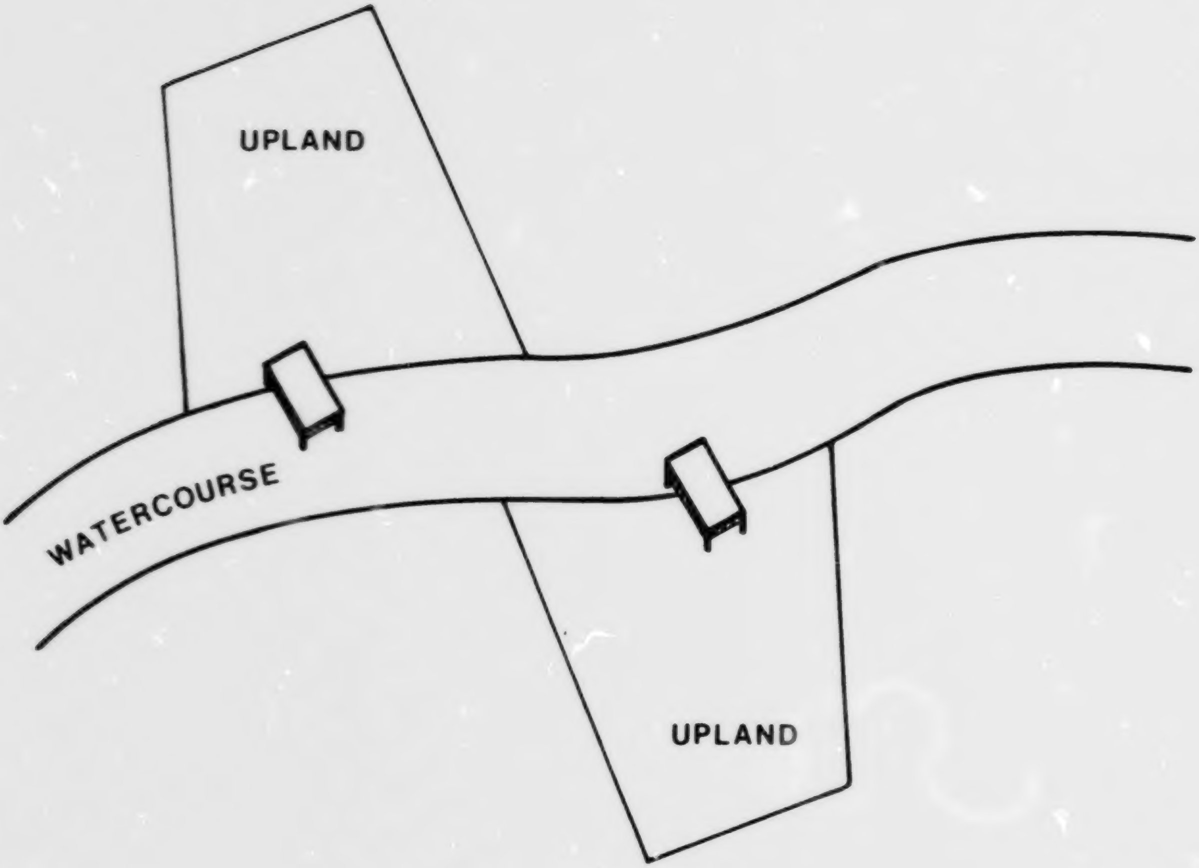
–NO LONGER A RIGHT IN B.C.


UPLAND
WATERCOURSE
UPLAND

②"AD MEDIUM FILUM AQUAE" (TO THE MIDDLE THREAD OF THE STREAM)

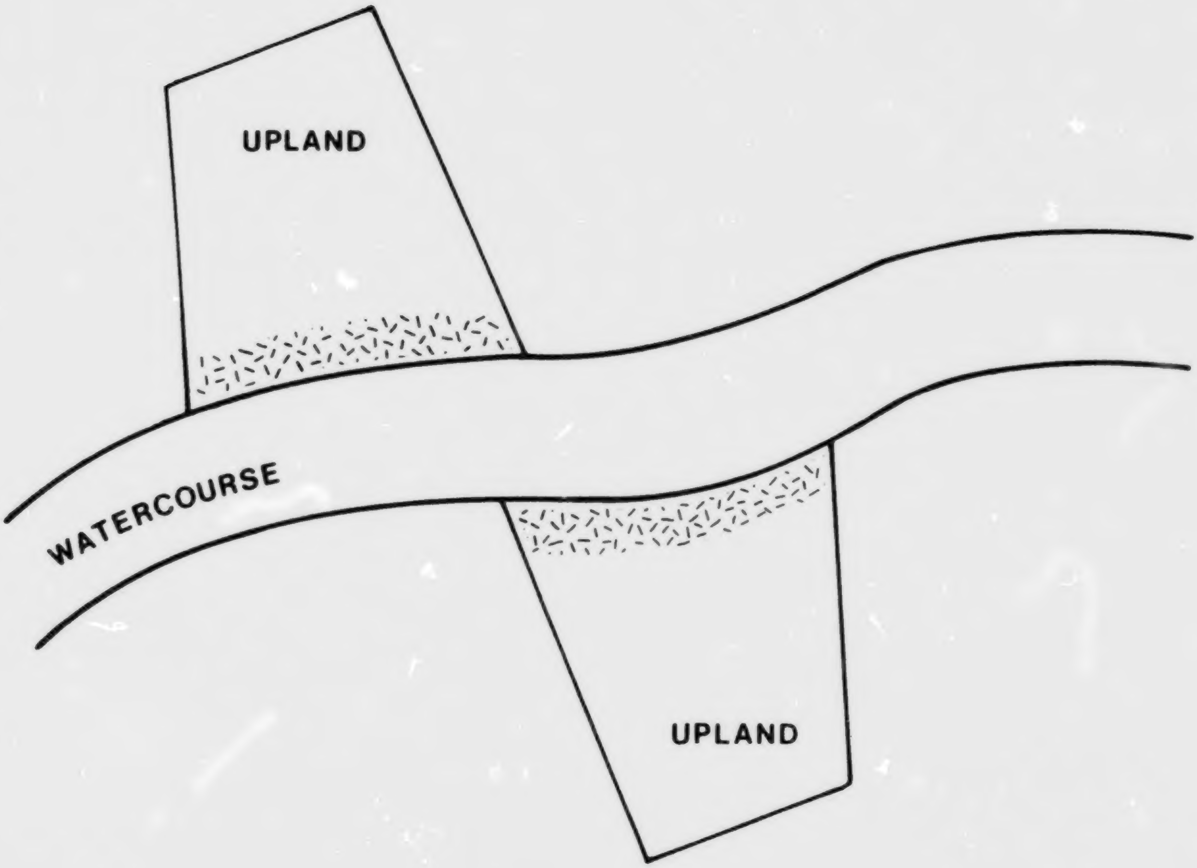
-ABROGATED BY SECTION 52 OF THE LAND ACT, MADE BEDS OF WATERBODIES CROWN LAND.

—NEVER EXISTED AS A RIGHT IN B.C.


UPLAND
WATERCOURSE
UPLAND

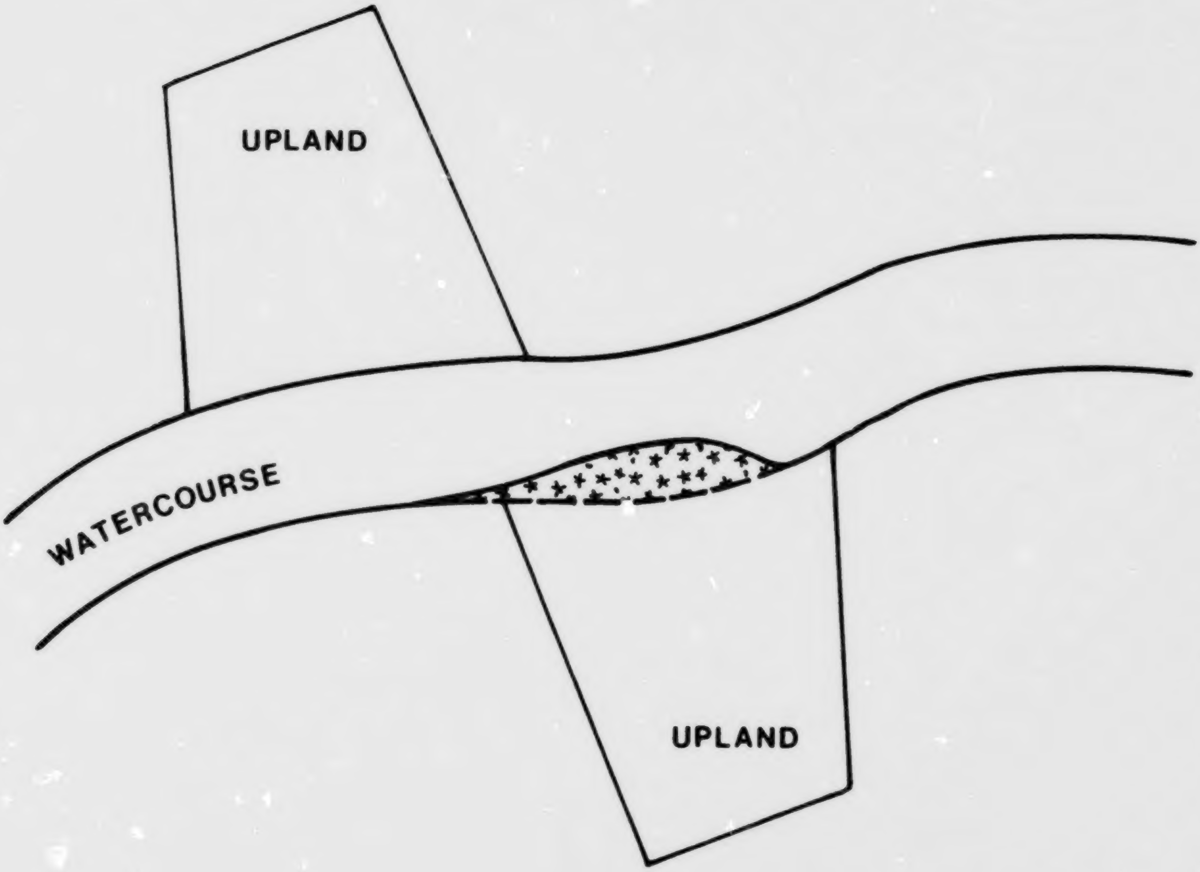
③ THE RIGHT TO CONSTRUCT FACILITIES TO PROVIDE ACCESS

—NEVER EXISTED AS A RIGHT IN B.C. BECAUSE FORESHORE IS CROWN OWNED.


UPLAND
WATERCOURSE
UPLAND

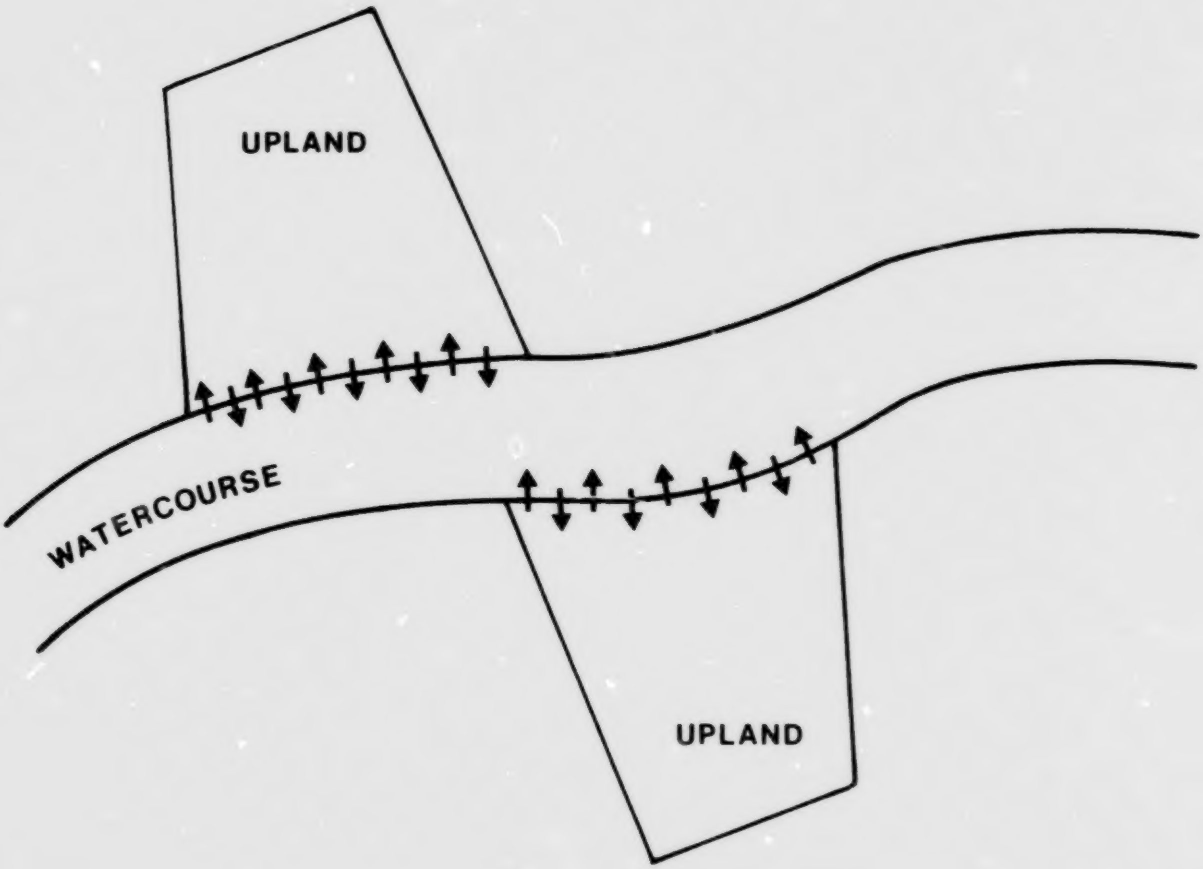
④ THE RIGHT TO PROTECT UPLAND FROM EROSION

- *STILL RECOGNIZED IN B.C. AS LONG AS IMPROVEMENTS ARE ABOVE SURVEYED BOUNDARY.*


UPLAND
WATERCOURSE
UPLAND

⑤ THE RIGHT TO NATURALLY ACCRETED MATERIAL

–STILL RECOGNIZED IN B.C. FOR MATERIAL WHICH ACCRETES SLOWLY AND IMPERCEPTIBLY BY NATURAL PROCESS.


UPLAND
WATERCOURSE
UPLAND

⑥ THE RIGHT OF ACCESS TO AND FROM DEEP WATER

– STILL RECOGNIZED IN B.C. – ACCESS MUST BE POSSIBLE FROM EVERY POINT ALONG THE PROPERTY BOUNDARY OVER EVERY PART OF THE ADJACENT FORESHORE.

3. Construction of Facilities for Access

The right of waterfront owners to construct docks, wharves, ways, etc. to provide for access from their property to deep water.

4. Protection of Land

Waterfront owners generally have the right to protect their shoreland from erosion by constructing improvements.

5. Natural and Imperceptible Accretion

In most jurisdictions waterfront owners obtain the right to claim material which has accreted to their shoreland in a slow and imperceptible way as a result of natural processes.

6. Access (Ingress and Egress) to and from Deep Water

The right of waterfront owners to unimpeded access to and from every part of their waterfrontage over every part of the adjacent foreshore.

Riparian/Littoral Rights Which are Recognized in British Columbia

Of the six original riparian/littoral rights, three either never were recognized in British Columbia or were abrogated by statute: the right to construct facilities for access; the right to water flow of undiminished quality and quantity; and the right of ad medium filum aquae.

° The three riparian/littoral rights which are still recognized in British Columbia are:

1. The right to protect waterfront property from erosion, as long as the improvements are located above the high water mark;

2. The right to naturally and imperceptibly accreted land; and
3. The right of unimpeded ingress/egress.

Types of Tenure Issued by the Ministry of Lands, Parks and Housing

The following types of tenure are issued for upland, foreshore and offshore uses:

Lease

- conveys a limited interest in the land;
- allows for construction of major improvements;
- usually requires a management plan;
- used where a secure interest in the land is required;
- because of the nature of improvements which are often constructed on foreshore leases, this type of tenure is generally the most likely to be involved in riparian/littoral rights conflicts.

Licence of Occupation

- provides authorization to occupy Crown land for a given purpose;
- usually limited in term to ten years;
- does not convey an interest in the land;
- major improvements are generally not authorized under this form of tenure, and as such infringement of riparian/littoral rights is less common with this form of tenure.

Letter of Consent

- issued for investigative purposes or to authorize temporary short-term use;
- issued for up to one year for investigative purposes and up to six months for temporary uses;

- generally does not convey a right to construct improvements, and does not usually create riparian/littoral rights conflicts.

Statutory Right of Way or Easement

- used to authorize linear uses such as utilities;
- can involve major improvements crossing the foreshore and as such can sometimes be involved in riparian/littoral rights conflicts.

Riparian/Littoral Rights and the Administraiton of Land Act Tenures

- The major riparian/littoral right which must considered in administering foreshore and offshore tenures is the right of unimpeded access to and from deep water.

- Wherever a conflict is inevitable, the Ministry must obtain the written consent of the waterfront owner before authorizing any tenure involving improvements which would impede the upland owner's right of access.

- Upland owner's consent can be a problem for the Ministry, since it can be unreasonably withheld, or not renewed by successive owners of the waterfront property.

- The following illustrations show the constraints imposed by the riparian/littoral right of access on foreshore tenure administration.

Possible Methods of Avoiding the Necessity of Obtaining Owner's Consent

There are several possible ways for the Ministry to get around the problem of upland owner consent. These options are currently under review.

1. Avoid any Conflict through Tenure Placement

Obviously, the most desirable option, where feasible, is to locate foreshore and offshore tenures in such a way as to avoid any conflict with the upland owner's right of access.

2. Continue to Use Written Consent where the Proposed Tenure is Impermanent or where Improvements will not be Major

In those cases where the foreshore or offshore tenure proposed by the Ministry is relatively impermanent (ie. licence of occupation) or where improvements (and associated expenditures) are not major, the current practice of obtaining upland owner's consent can continue.

3. Register a "Notation" or "Charge" of Consent on the Title of the Upland Property

Register an owner's consent on the title of the upland property. Any improvements and expenditures on a adjacent foreshore tenure would probably then "estop" that consent from ever being withdrawn by future owners of that waterfront property.

4. Survey out and Purchase a Strip of the Upland Property Adjacent to the High Water Mark

If the upland owner agrees, the Province could purchase a strip of the upland property from the owner, thereby re-obtaining the riparian/littoral rights for that section of shoreland.

5. Abrogating the Riparian/Littoral Right of Access by Statute

The least popular option is to pass legislation which effectively abrogates the riparian/littoral right of access, in the same way as some of the other traditional riparian/littoral rights have been abrogated in the Province.

NATURAL BOUNDARIES AND THE TORRENS TITLE SYSTEM

prepared by Donald Duffy
Surveyor General and Director
Surveys and Lands Branch, Ministry of Forests & Lands
British Columbia

SPEAKER'S INTRODUCTION

Don Duffy was appointed Surveyor General in 1985. Prior to that, he had been in private practice as a land surveyor an planning consultant in central British Columbia for twenty-five years.

Don is commissioned as a Canada Land Surveyor and a British Columbia Land Surveyor. He is also a member of the Canadian Institute of Planners and of the Planning Institute of British Columbia.

SUMMARY

The Torrens Land Title Systems, as it has evolved in British Columbia, contains certain rigidities which can lead to difficulties in the administration of natural boundaries. The imprecise and ambulatory nature of these boundaries may be at odds with the Torrens requirements of simplicity and clarity.

In British Columbia, an administrative system has been devised which eliminates most of the conflict, with relatively low cost and limited delay. Virtually all conflict situations are resolved by administrative means, although access to the courts is available if the administrative routine is unsuccessful.

This paper provides a brief explanation of the British Columbia method of administering natural boundaries in a Torrens Title jurisdiction.

A Note on the Torrens Title System

The System of Land Titles in use in British Columbia is a modification of the original Torrens System which was devised by Sir Robert Torrens and introduced by him in South Australia in 1858. To landowners and other users, it has advantages of simplicity, economy and certainty which make it superior to most of the world's land title systems.

In most North American jurisdictions where the Torrens System is not in use, the operative title system is some variant of the "abstract of title" system, which developed through gradual evolution over the last two hundred years. When a property transfers, the vendor is required to produce documents which prove every deed, mortage, inheritence, or other event which affected title for a specified period, which may be 30 years or more, prior to the date of transfer. Even on receipt of this abstract, the purchaser has no real certainty of receiving valid title, since, if a third party is subsequently able to prove that a fraud or mistake occurred at some point in the chain of title, the transfer may be voided by legal action. Because of this risk, it is common practice for owners to carry title insurance in "abstract of title" jurisdictions.

The four basic principles of the Torrens System, as operated British Columbia,[1] are as follows:

* Titles are indefeasible.

* Documents intended to affect title must be registered.

* Users may rely totally on the Certificate of Title and will not be assumed by the courts to be aware of unregistered interests.

* An Assurance Fund is available to compensate users who suffer loss through the workings of the system.

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[1] Land Title Practice Manual, 3rd edition.

The principle of indefeasibility menas that the Certificate of Title is conclusive evidence of ownership against all persons who may claim title. It effectively draws a curtain beyond which the owner need not make historical searches.

The principle of registration means that documents which are not registered in the Land Title Office do not affect title. Although an unregistered agreement between two parties is binding upon them, it does not affect a third party unless registered. Thus no purchaser needs to worry about an unregistered agreement of which he is not aware.

The ability to rely on the Certificate of Title means that searching of other records is not required prior to a property transaction and that close inspection of properties for physicl evidence of easements, etc., is not necessary.[2]

The existence of an Assurance Fund means that money is available to compensate anyone who suffers through the workings of the system. An example of the working of the Assurance Fund would be in a situation where a property had transferred and a new title been issued but, through error or fraud, a valid mortgage shown against the old title was not carried forward onto the new. If an innocent party were then to purchase the property, relying on a search of the new title, the mortgage holder would have no claim against him and the title would remain free and clear. Provided that he was not himself party to fraud, however, the mortgage-holder would have a claim against the Assurance Fund.

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[2] There are certain exceptions to this rule, the most important being that leasehold tenancies of less than three years duration, if including actual occupation, need not be registered.

Since the Registrar of each Land Title Office is responsible for the accuracy and completeness of documents which affect titles, the Land Title Act and various regulations are quite rigid and specific in their requirements as to documents and plans. Over time, this leads to a concise and uniform system of describing land. Although there are exceptions, a typical full legal description of a parcel consists of two or three printed lines. A complete Certificate of Title, listing all encumbrances and interests affecting title, can usually be accommodated on one legal sized page.

The uniformity, brevity and certainty of the Torrens System make it well suited for development into a computer-based on-line system and this step is underway in British Columbia, with most current titles now being drafted and stored on the electronic system.

PRESENTATION

If we attempt to describe the characteristics of the Torrens Title System in the briefest possible terms, such words as brevity, certainty, and rigidity come immediately to mind. The objectives of the System are brevity, simplicity and certainty. These objectives are achieved by rigidity of regulation and by development of a system which is stand-alone or self-contained, so that the user does not have to consult with outside sources of information.

If, on the other hand, we attempt briefly to describe the characteristics of natural boundaries, we might say that they are difficult to define, ambulatory, and subject to common law rules, as defined by many court decisions.

Clearly these differences are likely to lead to conflict. If we add to these inherent differences, the philosophical outlook of Land Title Administrators, who are oriented toward documented solutions sometimes without great understanding of physical processes, then there are abundant opportunities for difficulties. The purpose of this paper is to illustrate how these difficulties are dealt with in British Columbia.

The problems of administering natural boundaries in the Torrens System in British Columbia did not come to the attention of administrators until the 1950's when a specific legal challenge, involving an ambulatory boundary, caused the legal officers responsible for the system to take a close look at their policies. Until then, the general policy had been to assume that the land defined by a Torrens Title expanded or contracted to match any changes to a natural boundary which occurred as a result of accretion or erosion.

In 1954, H.J. Crane, then Senior Legal Officer of the Land Title System, wrote a legal opinion which caused the reversal of this policy. In essence, the opinion, as written by Crane but never tested in the courts, states that Title boundaries are fixed and are permanently defined by the limits of the boundaries on the plan on which they are based, even if one of these boundaries is a natural boundary. Accordingly, changes can only occur as a result of specific legal or administrative actions. They do not occur in response to natural forces.

This set of administrative rules would probably have long since been challenged in the courts, had administrative means not been found to prevent it from placing an onerous burden upon the owner of shoreland parcels. This has been accomplished in British Columbia.

In this province, where the natural boundary is an ownership boundary, the Provincial Crown is almost always the owner of the water or foreshore side of the boundary. Historically, the foreshore and bed of the ocean or of any lake, river or significant stream has only rarely been deliberately conveyed from the Crown into private ownership. I use the word deliberately because this may have occurred inadvertently, due to the working of the common law, on some occasions. For the purposes of this paper, however, it is correct to state that virtually all privately owned shoreland parcels are bounded by Crown owned foreshore and bed. This being the case, the Crown, as represented by the Provincial Government, is a party to practically all disputes or other activities related to natural boundary location. This has made it possible to devise relatively quick and low cost solutions for problems which, in other circumstances, would have to be dealt with by the courts.

We find that the problems of administration of natural boundaries in the Torrens System fall generally into one or the other of two classifications, the first being those related to precise definition and the second being those related to the fact that natural boundaries may shift over time. Often, of course, a given situation may involve both types of problem. It is simplest, however, to describe them separately.

The definition of "natural boundary", as set out in the Land Act of British Columbia, is as follows:

> The visible high water mark of any lake, river, stream or otherbody of water where the presence and action of the water are socommon and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the body of water a character distinct from that of its banks, in vegetation, aswell as in the soil itself.

This definition is of fairly modern vintage but was developed from judicial decisions and is probably as close as we can come to a common law definition. It gives us no problems with respect to the Torrens System when we are dealing with modern surveys, where the Land Surveyor, the Land Title Registrar and representatives of the Ministry of Forests and Lands all understand the rules. Our problems of definition arise with respect to the old survey plans. A great many shoreland titles are based upon plans of surveys carried out between 1860 and 1950, a period in which no clear rules for the definition of shorelines were applied. The rules as defined by the common law were quite similar to our modern definition of natural boundary but were not well documented or clearly understood.

Some problems of definition are as follows:

1. Since shoreline traverses were carried out for the purpose of calculating areas, not for defining boundaries, they were sometimes inaccurate, with insufficient offsets or none at all.

2. Some surveyors appear to have been uncertain as to what definition to use, may have used the top of a wooded bank for example, instead of the true natural boundary.

3. A shoreline may be depicted on a plan by a whole series of wavy lines. Which line is the boundary?

In non-Torrens jurisdictions, these discrepancies might not matter, since the ownership would be defined by legal precedent and no issue would arise unless there was a dispute. In British Columbia, under Torrens, clear definition is extremely important since, if the parcel is subdivided or resurveyed for other reasons, the registrar will compare the new survey plan with the old and will refuse registration if there are substantive differences. In effect, he will apply 1986 standards to an 1886 survey and will utilize what was intended, in 1886, to be a pictorial depiction of a shoreline as an accurate delineation of that line. He is required to do this as a result of the Crane opinion of 1954.

Problems of shoreline definition are almost invariably resolved administratively by a procedure which requires the owner's surveyor to submit evidence. in the form of a survey plan and photographs, for review by the professional survey staff of the Ministry of Forests and Lands. If necessary, we will carry out a field inspection. If we agree with the natural boundary as defined, a certificate to that effect is signed by the Surveyor General and the plan is then accepted by the Registrar for deposit. If we cannot reach agreement, the owner has the right to proceed with legal action, but this is very rare.

Illustrations "A" and "B" show a shoreland parcel, as depicted by an original 1890 plan and by a 1985 plan. There is no evidence of any accretion or erosion.

The problem of the ambulatory natural boundary is somewhat more complicated than the problem of the poorly defined one. While the common law recognizes that ownership shifts over time, as a natural boundary moves, the records upon which Torrens title is based do not automatically reflect these changes. They are essentially a shapshot in time.

Most owners of waterfront properties are not concerned if their ownership, as defined by their Torrens Title, precisely matches the land which they own and occupy under the common law. The Crown, as owner of the abutting foreshore, will also be unconcerned with continuing changes unless the issue raised by the owner or a third party. It has not been government policy to initiate procedures to lay claim to eroded land.

Most procedures for the adjustment of the Torrens Title boundary to match the current natural boundary occur when a parcel is subdivided. At this time, the owner's surveyor will recreate the original title boundary on a plan and will also define the current natural boundary on the same plan. If the current natural boundary is above, or on the landward side of the original title boundary, erosion has occurred and the owner has the option of either retaining title to the eroded land or returning it to the Crown by means of a note on the plan. If the current natural boundary is below or on the water side of the original title boundary, then accretion has occurred and the owner has the choice of either subdividing only to the title boundary or applying to the Crown for recognition of the accretion and having it added to his title. In this event, his surveyor will submit evidence which may include photographs and, in difficult cases, soils reports to the Ministry of Forests and Lands in support of the claim. If the accretion is found to be valid, the Ministry will recognize his ownership by a certificate on the subdivision plan.

An owner who is not subdividing may appy for recognition of an accretion in a similar manner.

Administration of natural boundaries in the Torrens System can become quite complicated where large changes have occurred over long periods of time. A case in point is illustrated in Exhibits "C", "D" and "E". In 1892, a district lot, illustrated in Exhibit "C" is surveyed and conveyed to private ownership. By 1923, when the parcel is subdivided into three large parcels, substantial erosion has occurred, as shown in Exhibit "D". New titles are issued for the three new parcels but the registrar neglects to cancel the old title which remains on file.

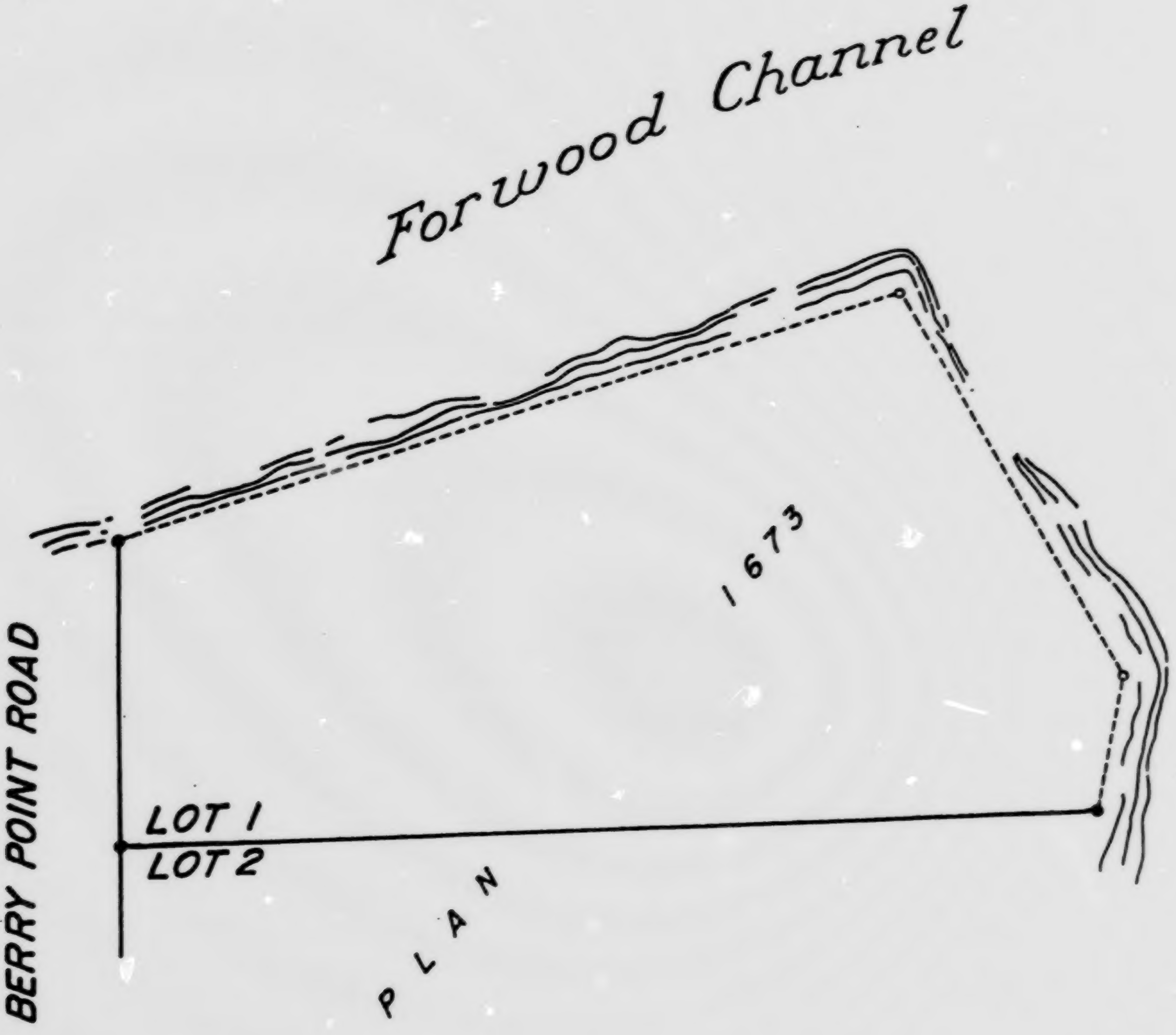
In 1947, an island, shown in Exhibit "E", is surveyed and subsequently granted to another party. Plan examination being less rigourous then than now, no one notices the overlap with the old title, still slumbering in the Land Title Office.

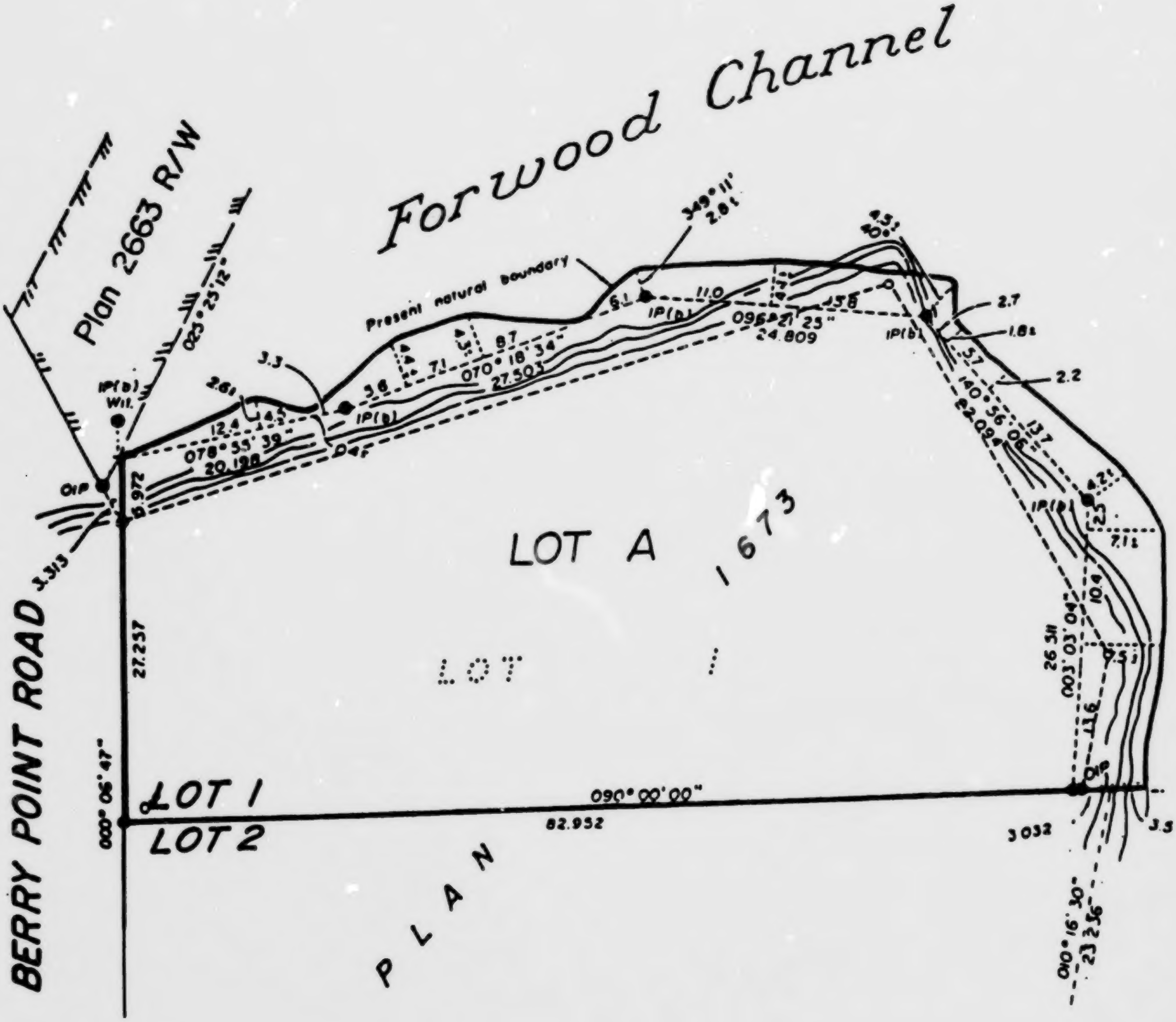
By 1980, gravel values in the river bed and timber values on the island have increased to a point where a private individual discovers the old title, acquires it and claims that it still has substance. Where does that leave the owner of the island?

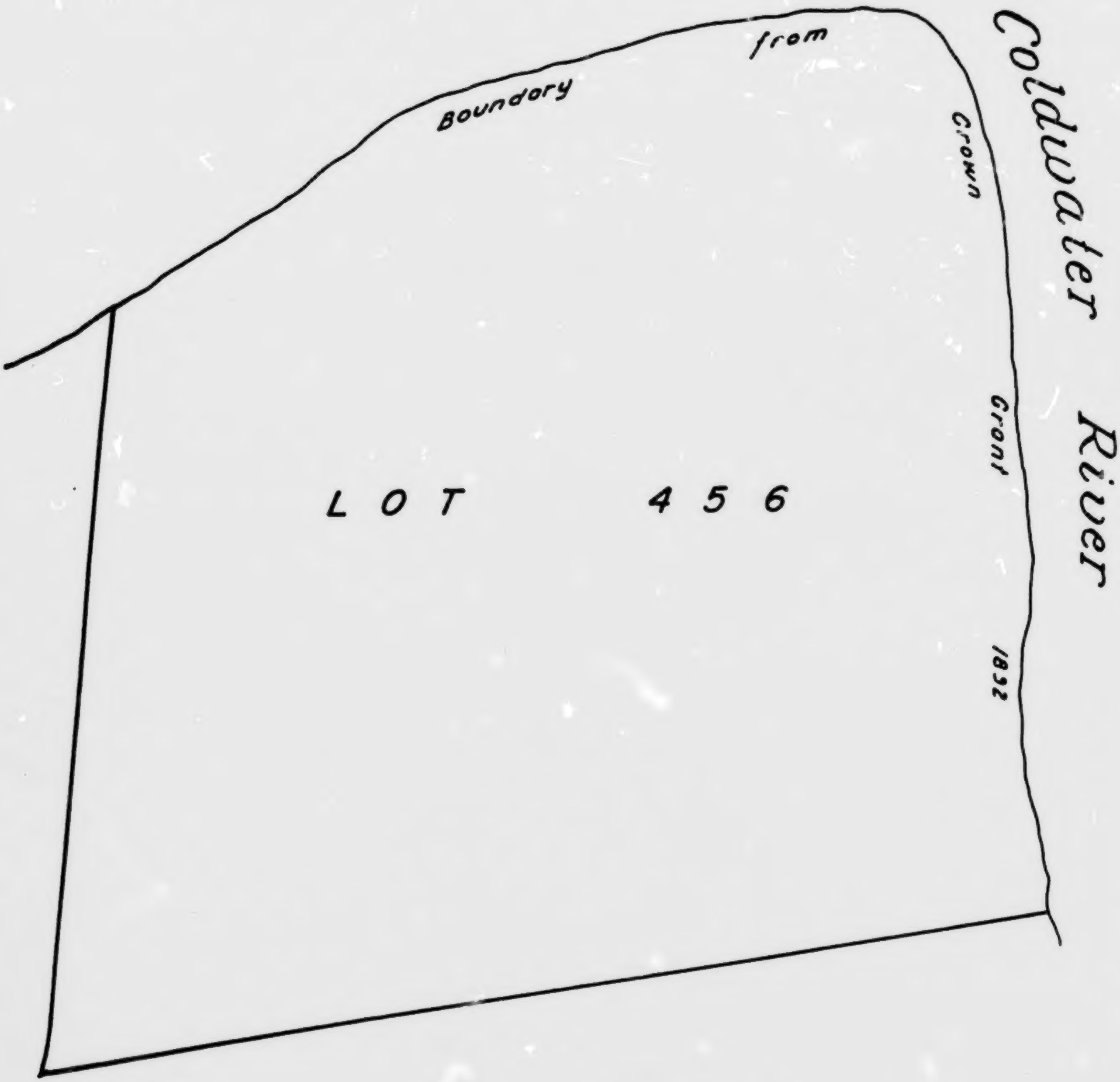
In our view, the old title has no substance and the bed of the river passed to the Crown by erosion. The owner of the island is entitled, on application, to the accretion which has taken place since 1947, minus any erosion. The owner of the island in entitled, on application, to the accretion which has taken plae since 1947, minus any erosion. The problem with all this is that there is a cloud of legal uncertainty over the whole matter because of that uncancelled title and the problem may be unresolvable outside the courts.

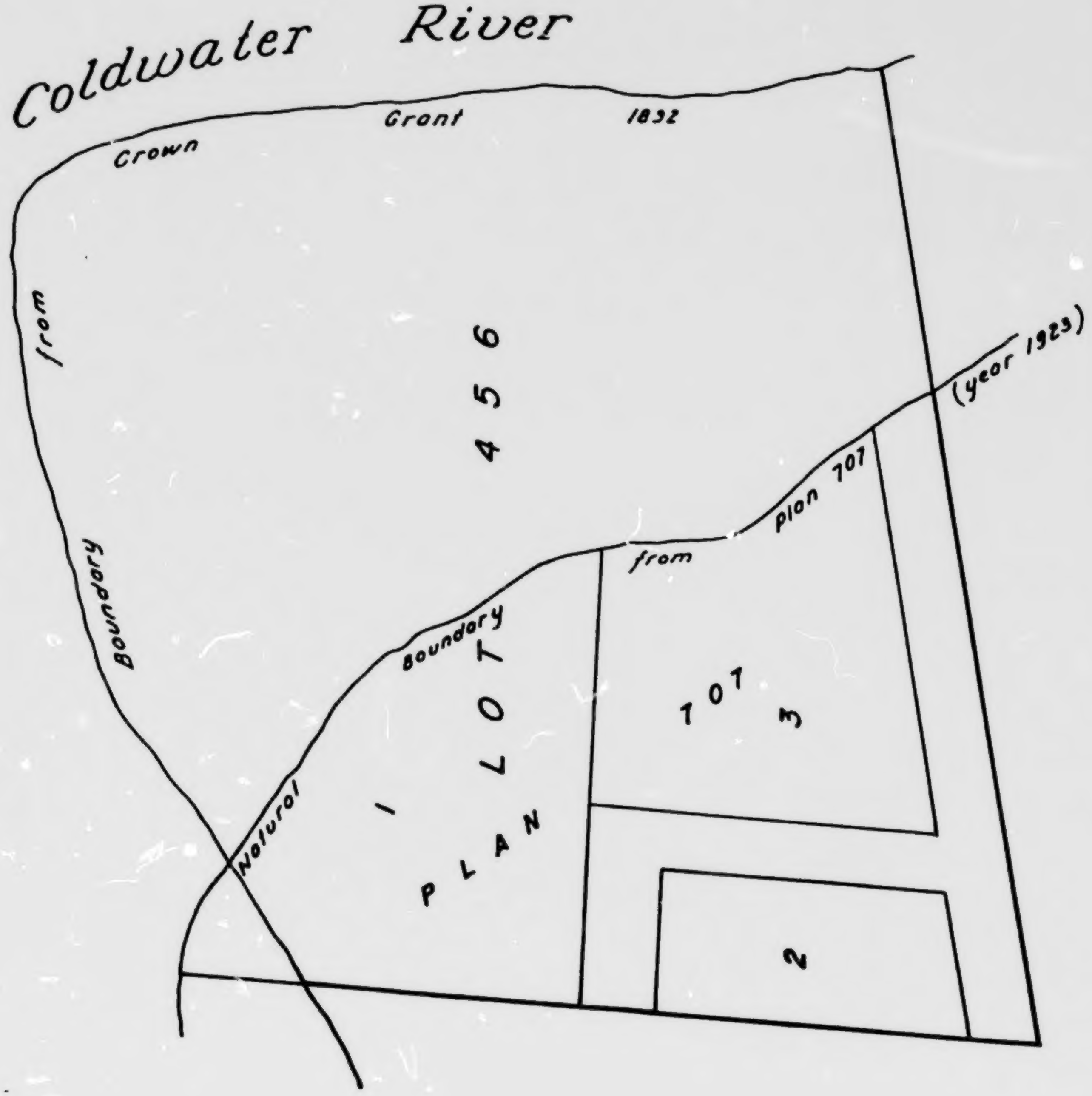
Apart from a few unusual cases, it appears that the method of administration of natural boundaries in a Torrens jurisdiction, as it has evolved in British Columbia, works very well. The best evidence of this is the minimal number of cases which have gone to the courts over the years. Where uncertainties exist, they are generally the result of statutory or administration weaknesses in past years which have generally been corrected as they have been identified.

"A"

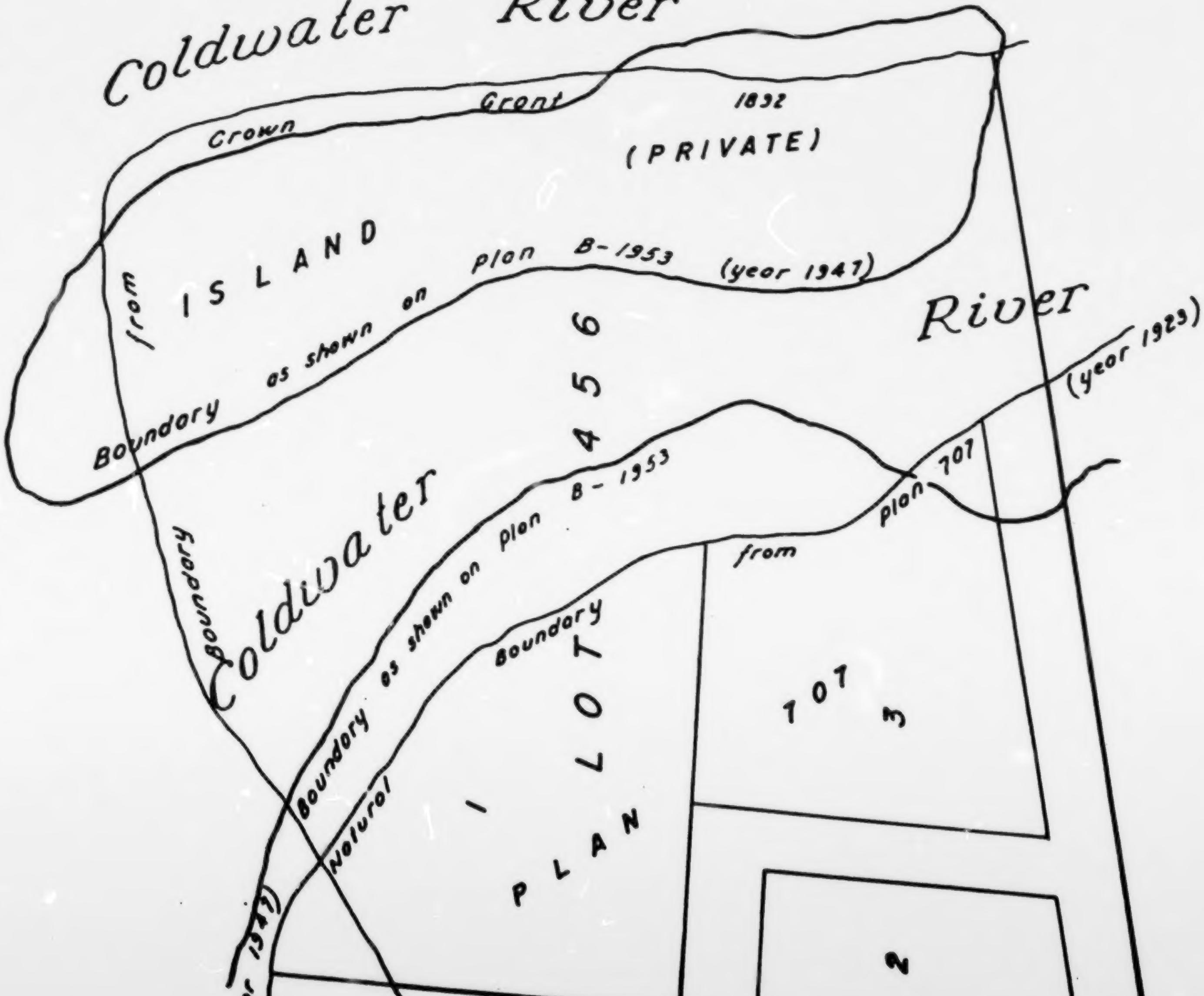

Forwood Channel
1673
BERRY POINT ROAD
LOT 1
LOT 2
PLAN


Forwood Channel
Plan 2663 R/W
023°25'12"
349°11'
2.8±
Present natural boundary
6.1
11.0
IP(b)
096°21'23"
24.809
13.8
4.3±
3.0±
2.7
1.8±
2.2
5.7
140°56'06"
82.094
13.7
3.3
2.6±
3.6
IP(b)
7.1
8.7
070°18'34"
27.503
12.4
14.5
078°55'39"
20.198
IP(b) Wit.
OIP
5.972
3.313
LOT A
1673
LOT
IP(b)
4.2±
2.5
7.1±
10.4
26.511
003°03'04"
7.5±
13.6
OIP
BERRY POINT ROAD
27.257
000°06'47"
LOT 1
LOT 2
090°00'00"
82.952
3.032
3.5
PLAN
010°16'30"
23.356


Coldwater River
Boundary from Crown Grant 1832
LOT 456


Coldwater River
Boundary from Crown Grant 1832
Natural Boundary from plan 707 (year 1923)
456
LOT 1 PLAN
707 3
2

E



Coldwater River
Crown Grant 1832
(PRIVATE)
ISLAND
from
Boundary as shown on plan B-1953 (year 1947)
River
456
Boundary
Coldwater
Boundary as shown on plan B-1953
from plan 707
(year 1923)
Natural Boundary
(year 1947)
LOT 1
PLAN
707
3
2

UPLAND OWNER'S RIPARIAN RIGHTS IN IDAHO

prepared by Lance, Nielsen
Chief, Bureau of Navigable Waters
Idaho

SPEAKER'S INTRODUCTION

Lance Nielsen is presently employed as Chief of the Bureau of Navigable Waters in the state of Idaho. He acquired a Bachelor of Science in Forest Resource Management in 1977 and has spent considerable time in the management of rural lands in Idaho. In his current position, he is responsible for developing long-range plans and policy for appropriate waterway uses while ensuring the protection of water quality, fish and wildlife habitat, and navigational safety.

PRESENTATION

Idaho's early history was heavily influenced by the timber industry. Lumber mills were established near the waterways because rivers and lakes afforded an inexpensive mode of transporting unmilled logs to the point of manufacture. Towns sprang up around the mills. In northern Idaho, navigation on the rivers and lakes was the primary mode of transportation to mines, logging camps, farms and communities.

Idaho Navigable Waters case law extends back nearly to our 1890 statehood because of the extensive commercial navigation. The Idaho Courts have typically recognized a riparian landowner's right of access to the water, but have not recognized a riparian's exclusive right to consumptive uses such as water appropriation of mineral extraction.

In the early days, commercial navigation in the form of log booming and log transport was recognized as an important economic facet of the state's wellbeing. Recreational waterway uses have grown through the years and public trust uses have evolved to include many activities such as swimming, boating, fishing, sailboarding, bathing and hunting, in addition to commercial navigation.

The Idaho Legislature passed the Lake Protection Act (LPA) in 1974. The effect of this legislation was to "grandfather" existing encroachments and uses of the waterways and establish criteria for balancing recreational and commercial uses within a limited waterway system.

The LPA essentially defined riparian rights in Idaho by establishing the following standards:

1. Owners of encroachments that existed in 1974 or before could establish a "grandfather right" by a filing a notice of encroachment with the Department on or before December 31, 1974, specifying the dimensions and location of their facility.

2. Since 1974, written permission must be obtained prior to building any encroachment on, in, or over submerged lands. Regulatory control covers both sovereign and privately owned submerged lands.

3. Riparian landowners are the only persons qualified to apply for encroachment permits.

4. Encroachments must be built adjacent to a riparian landowner's upland property.

5. Encroachments may extend out into the water only far enough to accommodate moorage during low water conditions. However, encroachments may not extend beyond the line of navigation.

6. The line of navigation is established through use and may be formally set by the State Board of Land Commissioners.

7. No riparian rights exist waterward of the ordinary high water mark.

8. Idaho Code presumes that commercial and non-water dependent encroachments will have an adverse impact on neighboring property if located closer than 25 feet to adjacent property boundaries, and that non-commercial and water dependent uses will have an adverse impact on neighboring property if located closer than 10 feet to adjacent property boundaries. This clause of the code is basically a setback requirement.

9. Leases or easements can be required for the use of any sovereign lands. Idaho sovereignty extends to the ordinary high water mark, uninfluenced by manmade structures.

The Idaho Code specifically states that it is in the public interest to review all requests for encroachments to assure that the public trust will not be adversely affected.

Riparian landowners can build private encroachments only after receiving written permission. Permission will not be granted in public trust uses or resources would be unreasonably compromised for the sole benefit of a few riparian landowners. Vice versa, riparian landowners will not be denied wharfage out to deep enough water to moor a boat as long as no public trust uses or resources are unreasonably diminished or damaged.

Riparian rights are figured to extend perpendicular from the shore at the ordinary high water mark. Riparian rights become congested in coves where "riparian rights lines" converge and become dispersed when the lines diverge at a point or peninsula of land.

The biggest question facing sovereign land managers today is how to accommodate commercial, recreational, exclusive and public waterway uses within a limited area. Demand for waterway use is rapidly increasing in inland Idaho waters, and riparian landowners have a tremendous influence upon policymakers. The politically and financially elite segment of our populace holds the greatest amount of shoreline within their ownership, and subsequently they provide a lot of direction for policy development.

The LPA was drafted by special interest groups representing riparian landowners (who wanted greater control over the waters) and elected officials (who were responsible for perpetuating the public trust). The resulting legislation grandfathered existing structures and provided a formal review process whereby all future encroachments would be measured.

Twelve years of practice have established consistent policies of denying requests for non-water dependent uses such as restaurants and float homes. Public marinas that provide access and services for the boating public are favored. Modest single family docks are generally permitted. Large floating sundecks intended for private use are not allowed. These standards were developed as the result of public pressure, riparian landowner influence, and the foresight of elected representatives.

Public awareness and concern about quality public resources have also prompted the state to pursue collecting rent for the use of sovereign lands, in addition to our existing regulatory duties. Some profitable non-water dependent uses such as residences, restaurants and bars may be approved if the public is adequately and generously compensated for its "loss" of the areas occupied by those uses. Ultimately, we may see many non-water dependent uses of Idaho waterways, but only if the quality of fisheries, water, fish and wildlife habitat and aesthetic beauty can be maintained or improved.

In summary, riparian landowners have the right, subject to regulation, to build encroachments after obtaining written permission. Permission is granted whenever public trust uses and resources are not unreasonably diminished. The courts make the ultimate determination about what encroachments will be approved or denied. One case is presently before the Idaho Supreme Court concerning "drained" sovereign lands and another is before the District Court concerning log booming rights. The outcome of these suits will have a tremendous impact on future sovereign land management.

DAY 3

Log sort at Goliath Bay, British Columbia.

5TH ANNUAL SUBMERGED LANDS CONFERENCE

VICTORIA - NANAIMO BUS TOUR

Wednesday, October 8th, 1986

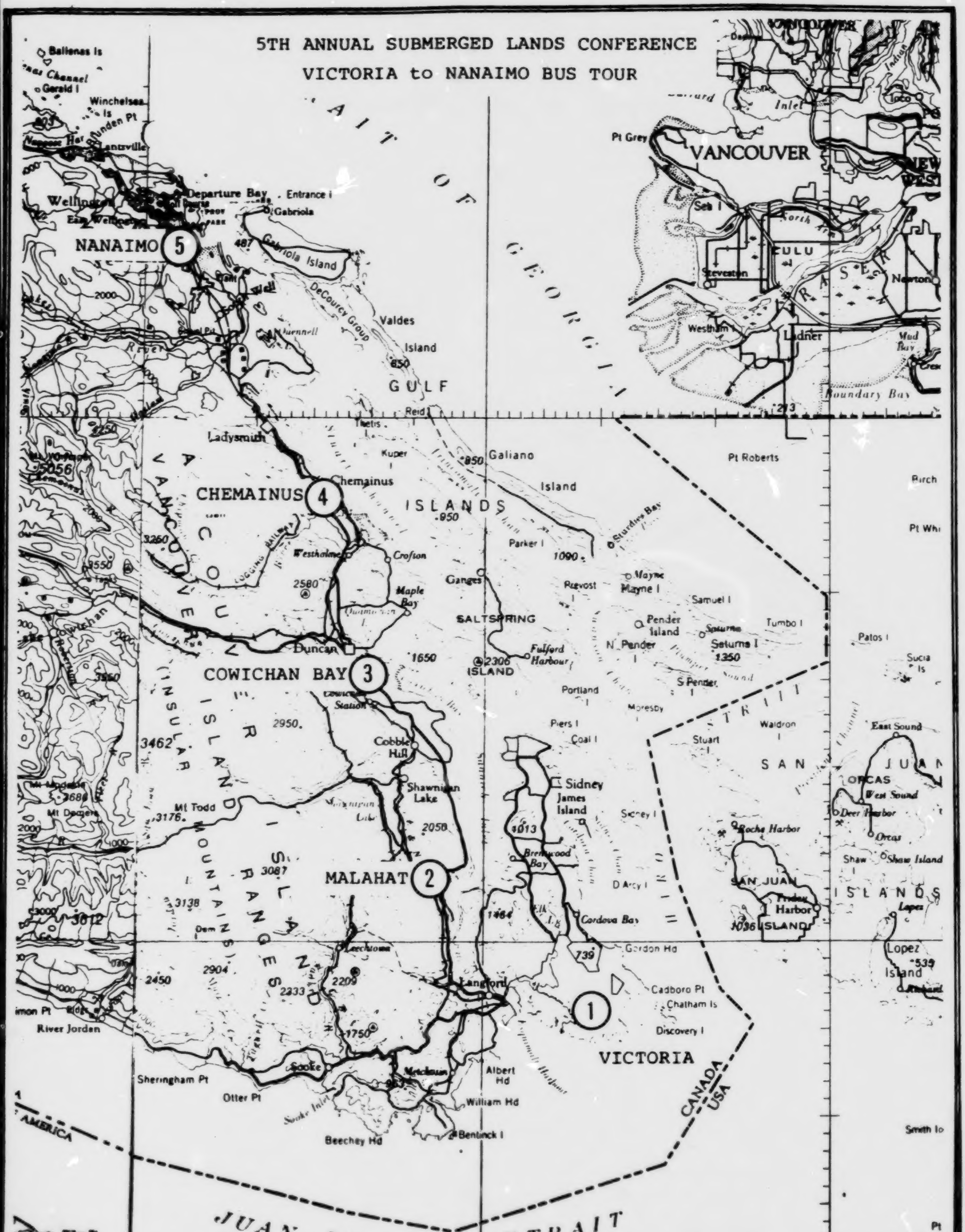
TOUR LEADERS:

Doug Berry, Senior Land Officer
Vancouver Island Region, B.C. Lands Division

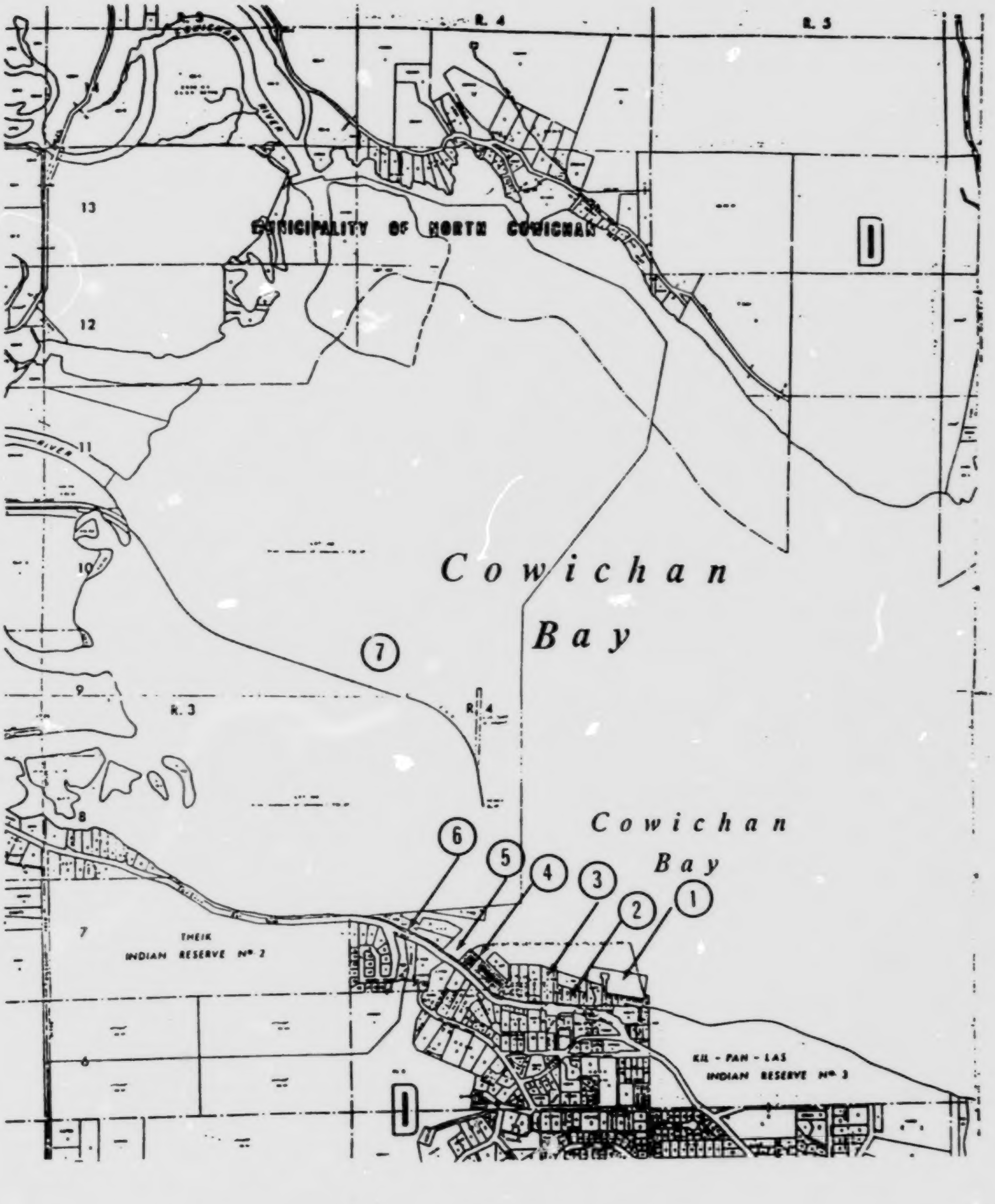
Keith Anderson, Land Inspector
Vancouver Island Region, B.C. Lands Division

ITINERARY:

9:00 a.m.	Buses leave Victoria from Royal Scot Motor Inn to view typical coastal foreshore uses and tenures. Stops of interest include Malahat view point, Cowichan Bay (map 2) and Chemanius (map 3).
12:00 Noon	Tour concludes in Nanaimo with lunch at Coast Bastion Inn.
3:00 p.m.	Buses leave Departure Bay (Nanaimo) to Vancouver via B.C. Ferry.



MAP 2
POINTS OF INTEREST
COWICHAN BAY


R. 4
R. 5
COWICHAN RIVER
14
13
12
11
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6
MUNICIPALITY OF NORTH COWICHAN
RIVER
Cowichan Bay
R. 3
R. 4
⑦
Cowichan Bay
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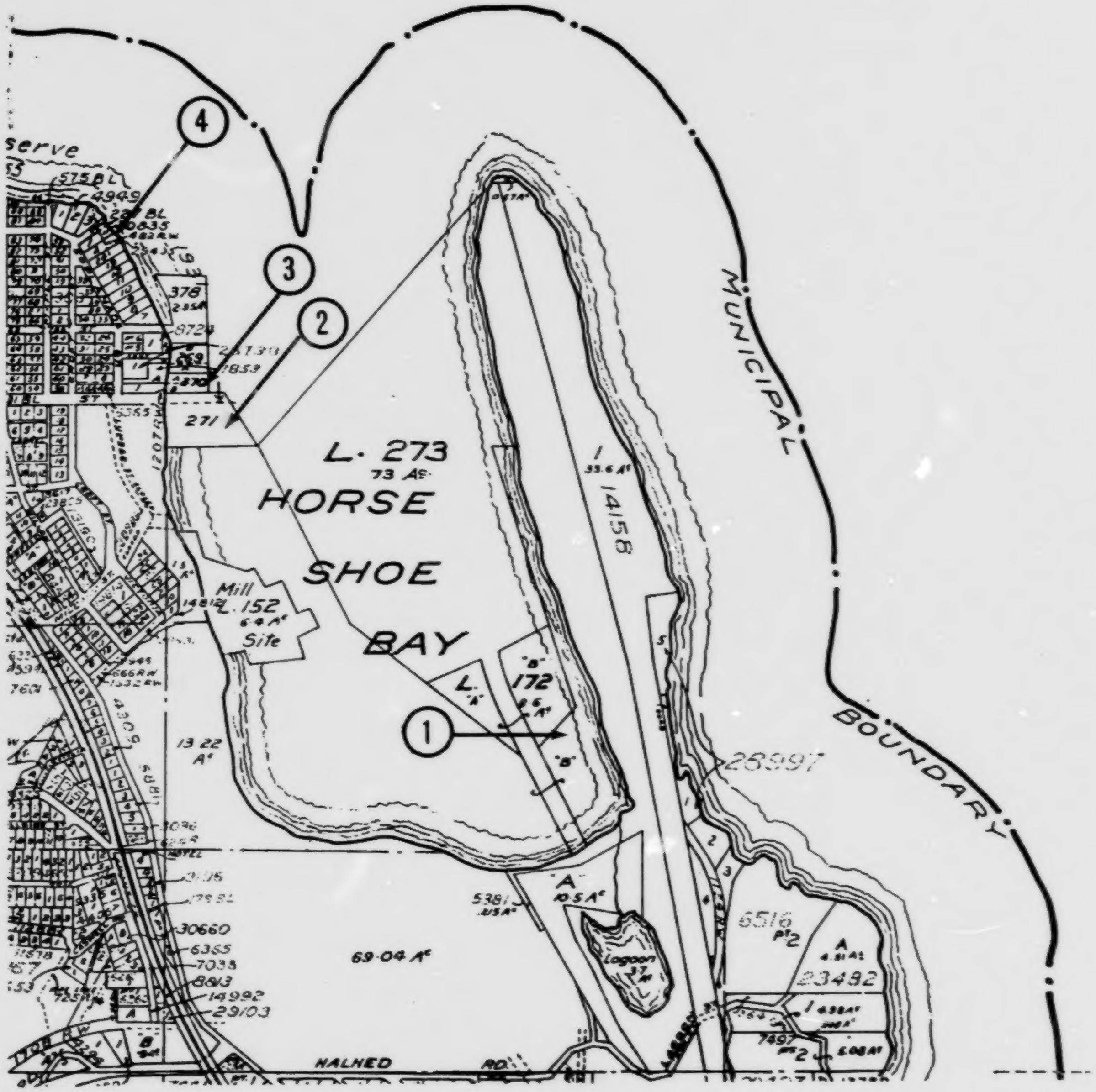
①
THEIK INDIAN RESERVE Nº 2
KIL - PAH - LAS INDIAN RESERVE Nº 3

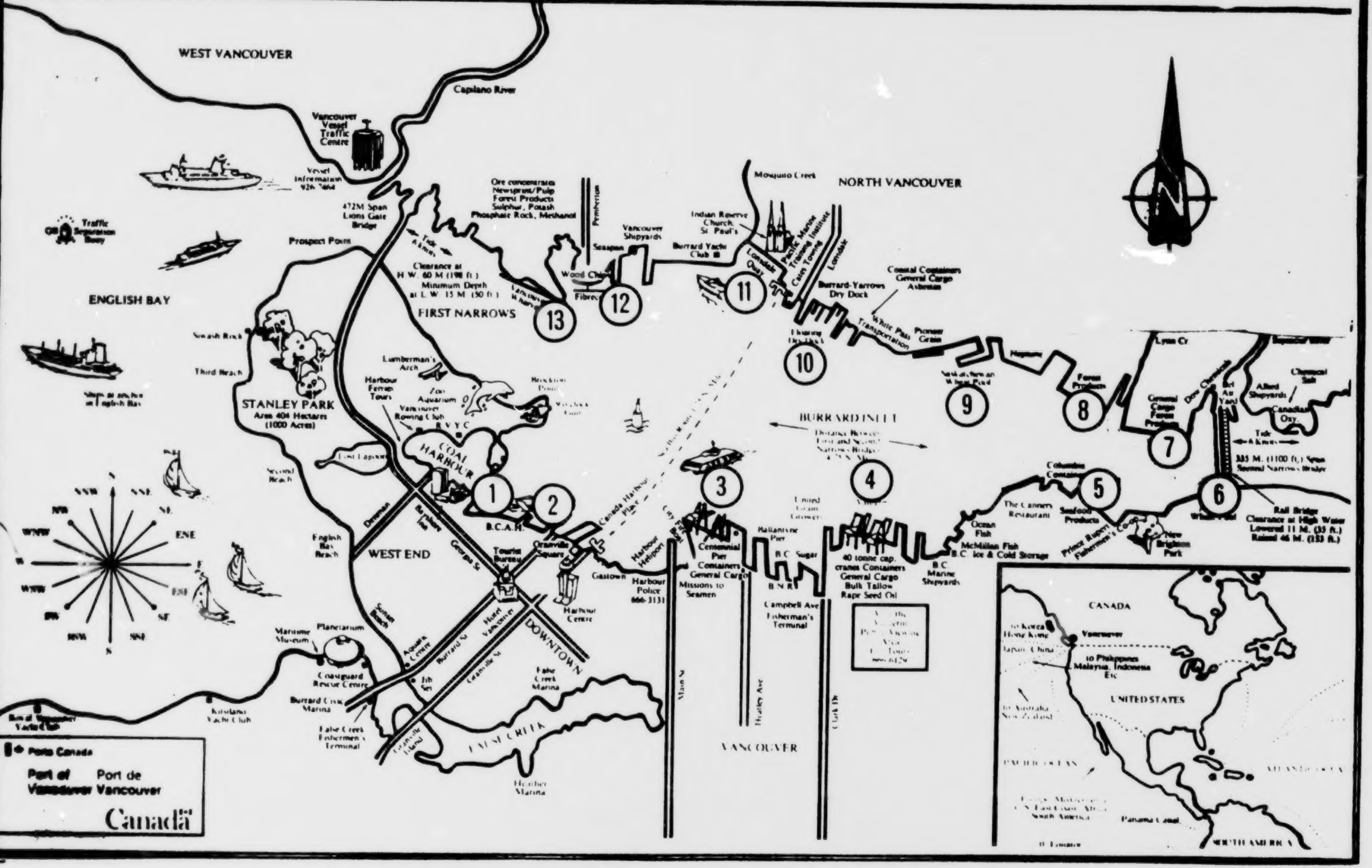
1. Federal Government Small Craft Harbour.
2. Small Commercial Marinas.
3. General Commercial Tenures.
4. Foreshore Residential
5. Public boat launch.
6. Proposed Regional District Park.
7. Privately owned Foreshore.

MAP 3
POINTS OF INTEREST
CHEMAINUS


4
3
2
1
serve
271
378
L. 273
73 As
HORSE
SHOE
BAY
Mill
L. 152
6.4 Ac
Site
L.
"A"
"B"
172
14158
MUNICIPAL
BOUNDARY
28997
"A"
10.5 Ac
Lagoon
5381
6516
23492
13 22 Ac
69.04 Ac
30660
6365
7035
8813
14992
29103
HALHED
RD.

1. Log dump and sorting.
2. B.C. Ferry wharf.
3. Industrial Leases.
4. Residential Leases.

5TH ANNUAL SUBMERGED LANDS CONFERENCE
VANCOUVER WATERFRONT TOUR
POINTS OF INTEREST


WEST VANCOUVER
Capilano River
Vancouver Vessel Traffic Centre
Vessel Information 926-7464
472M Span Lions Gate Bridge
Prospect Point
Traffic Separation Buoy
ENGLISH BAY
Ships at anchor in English Bay
Siwash Rock
Third Beach
STANLEY PARK
Area 404 Hectares (1000 Acres)
Second Beach
Lost Lagoon
English Bay Beach
WEST END
Sunset Beach
Denman
Georgia St
Burrard St
Granville St
Tide 6 Knots
Clearance at H.W. 60 M (198 ft.)
Minimum Depth at L.W. 15 M (50 ft.)
FIRST NARROWS
Lumberman's Arch
Harbour Ferries Tours
Zoo Aquarium
Vancouver Rowing Club
R.V.Y.C.
Brockton Point
COAL HARBOUR
B.C.A.H.
Tourist Bureau
Granville Square
Hotel Vancouver
DOWNTOWN
Harbour Centre
Gastown
Canada Harbour Place
Harbour Heliport
Harbour Police 666-3131
Planetarium
Maritime Museum
Coastguard Rescue Centre
Burrard Civic Marina
Kitsilano Yacht Club
Aquatic Centre
Jib Set
False Creek Fishermen's Terminal
Granville Island
FALSE CREEK
False Creek Marina
Heather Marina
Ore concentrates
Newsprint/Pulp
Forest Products
Sulphur, Potash
Phosphate Rock, Methanol
Vancouver Wharves
Pemberton
Wood Chips
Fibreco
Seaspan
Vancouver Shipyards
Burrard Yacht Club
Indian Reserve Church St. Paul's
Mosquito Creek
NORTH VANCOUVER
Lonsdale Quay
Pacific Marine Training Institute
Cates Towing
Lonsdale
Burrard-Yarrows Dry Dock
Floating Dry Dock
Coastal Containers General Cargo Asbestos
White Pass Transportation
Pioneer Grain
Saskatchewan Wheat Pool
Forest Products
Lynn Cr
General Cargo Forest Products
Dow Chemical
Air Yard
Allied Shipyards
Chemical Salt
Canadian Oxy.
Tide 6 Knots
335 M. (1100 ft.) Span Second Narrows Bridge
Rail Bridge
Clearance at High Water
Lowered 11 M. (35 ft.)
Raised 46 M. (153 ft.)
BURRARD INLET
Distance Between First and Second Narrows Bridges
Centennial Pier
Containers
General Cargo
Missions to Seamen
Ballantyne Pier
United Grain Growers
B.C. Sugar
B.N.R.
Campbell Ave Fisherman's Terminal
40 tonne cap. cranes Containers
General Cargo
Bulk Tallow
Rape Seed Oil
B.C. Marine Shipyards
Ocean Fish
McMillan Fish
B.C. Ice & Cold Storage
The Cannery Restaurant
Seafood Products
Columbia Containers
Prince Rupert Fisherman's Co-op
New Brighton Park
Wheat Pool
Main St
Heatley Ave
Clark Dr
VANCOUVER
1
2
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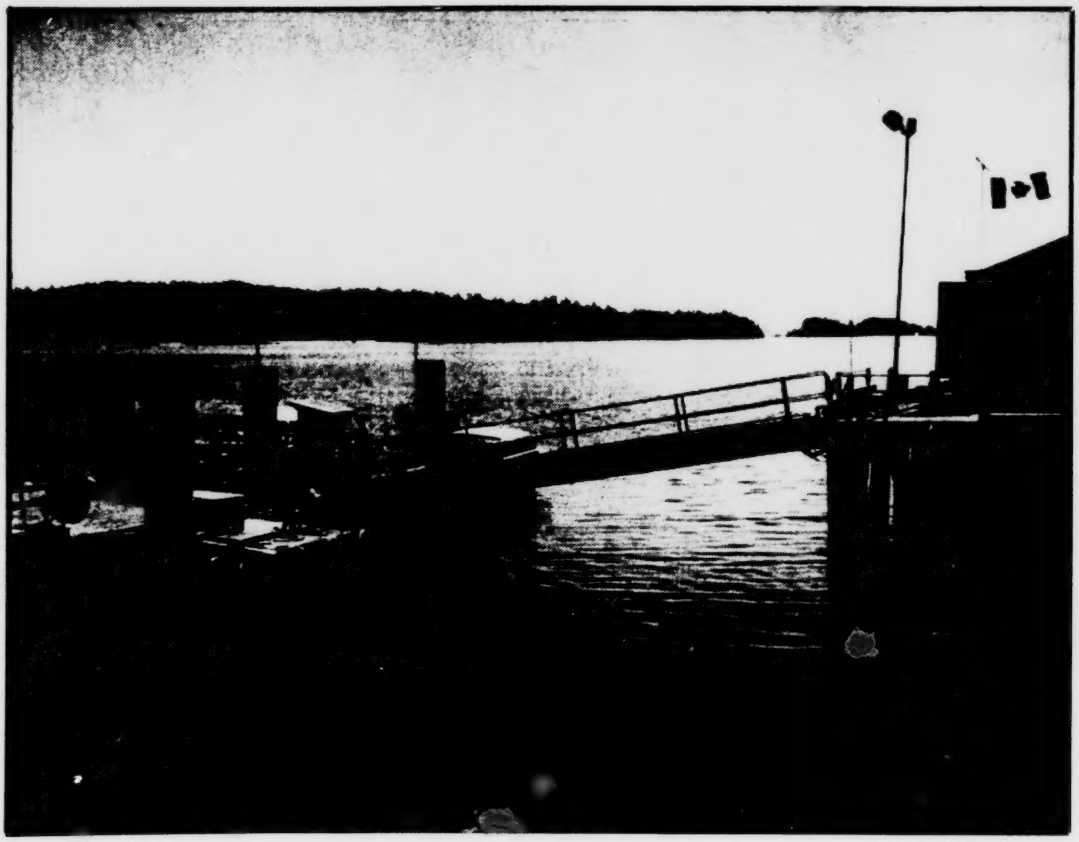
CANADA
to Korea Hong Kong
Japan, China
Vancouver
to Philippines Malaysia, Indonesia Etc
UNITED STATES
to Australia New Zealand
PACIFIC OCEAN
ATLANTIC OCEAN
Panama Canal
SOUTH AMERICA
Ports Canada
Port of Vancouver
Port de Vancouver
Canada

DAY 4



Gas dock on Saltspring Island, British Columbia.

WORKSHOP 6 - PLANNING THE VANCOUVER WATERFRONT

1. Planning and Development of Submerged Lands for Expo 86 (Bob Thompson)
2. Planning and Development in the Port of Vancouver (R.J. (Dick) Wright)

SPEAKERS INTRODUCTION

WORKSHOP 6

PLANNING THE VANCOUVER WATERFRONT

Chairperson: Jack Hall

Jack Hall has worked in Land Management for the past 15 years and until recently, worked in the interior of British Columbia. He was recently promoted to the Lower Mainland Region of B.C. Lands to assume the position of Regional Director in the Burnaby office.

Jack studied at the University of Victoria and University of British Columbia and is intimately familiar with coastal issues in B.C.

PLANNING AND DEVELOPMENT OF SUBMERGED LANDS FOR EXPO 86

prepared by Bob Thompson
Planning Director, B.C. Place
British Columbia

SPEAKER'S INTRODUCTION

Bob Thompson earned a bachelor's degree in geography at the University of Alberta, and a master's degree, also in geography, from the University of Vermont.

He has been on the staff of B.C. Place since 1981, first as a planner, and presently as a Manager of the Planning, Design, and Engineering Department, responsible for development of the Expo site in Vancouver's False Creek.

PRESENTATION

This presentation covers the area of False Creek and the shoreline that defines the southern boundary of Vancouver's downtown area. The southern shore of False Creek from Granville Island east has been completely redeveloped from industrial to a mixture of commercial and residential purposes over the past 15 years, using very innovative and community-minded ideas. The property on the northern shore of False Creek from the Burrard Street Bridge east was transferred to B.C. Place in 1980 for development into its present use as the site of Expo 86. I intend to show you some slides of the whole False Creek area, which you will be seeing for yourselves later, and to go into some detail on the preparations that were made for the Expo site.

First, let's look at Granville Island, across False Creek from Expo. This is an active place, with people things to go do and see. The public market is right at the bottom on the right. Very exciting place. Everybody must go there. Here are some public ferries at Granville Island. B.C. Place actually rents space in our marina to two private ferry corporations that ferry people back and forth across False Creek. The size of the small boats is somewhere in the order of seven passengers; I think the number relates to certain navigation requirements at a federal level in terms of safety. We intend to have several of these. I can say from experience that they work really well for going across the water rather than getting in your car and driving around on the bridges that connect the downtown peninsula to the outlying areas of Vancouver.

Another area of Granville Island that is quite unique that you will be seeing later this morning is Sea Village. It is 13 float homes which are located on Granville Island right across from B.C. Place. This is, as I say, quite unique. Much of Vancouver used to be a float home community, shacks that they just built on a couple of logs. As you can see, the float homes on Granville Island now are quite substantial. This is an expensive form of waterfront development, I might add, from a land developer's perspective.

This is some of the development that was completed on the south shore of False Creek about five years ago. The City initiated some development on the shore on the south side of False Creek, which was also an industrial area. They initiated the development in the seventies and it is just about all built. The construction site you see at the right hand side of your screen has been developed. There are two buildings there now. This is a tradition of waterfront residential development, with parks on the waterfront, and a waterfront walkway, which B.C. Place will be continuing.

Now my problem is how to describe what the shoreline on the north side of False Creek looked like when B.C. Place bought the land from CP Rail. I've often been asked to describe where the shoreline was and I reply, it's where they stopped dumping stuff when they put the last load out there. There was *no rationalization to the shoreline. Most of the site was fill. Actually the* only portion that wasn't is where the roundhouse and the stadium are. They were located there because they had good solid bearing. The fill consists of whatever they had when they were dumping. We have been told that as we dig down through the fill to found our buildings or drive piles we will run into one or two locomotives. I can assure you we've run into all sorts of lumber slash, odd-sized rocks, bits of concrete, old car bodies, but CP Rail says, yes, we did put a locomotive in there somewhere. And I know somebody is going to say some nice things when they locate it.

What sort of waterfront treatment do we use? This is the waterfront treatment on the south shore of False Creek. You can see that it's hand-placed rock, which is very expensive from an economic point of view. This was done under a federal works grant. These sort of grants are no longer available and I can assure you that our waterfront will not be as expensive a treatment because it just can't be paid for.

So, in dealing with the waterfront we made a whole series of plans, looked at hiring some engineers, looked at various treatments. This is one of the alternatives we looked at, which would be less expensive than the hand-placed riprap with the stone wall and a stone walkway on top. This is deck-over-pile supported at the back by a grade beam with riprap slope underneath. This is quite attractive both aesthetically and financially. I think the cost is somewhere in the order of $8,000.00 per linear metre, as compared to sheet-pile wall which is about $17,000.00 per linear metre. To a company that owns four kilometres of sea wall or shorefront, that adds up fast.

We prepared a number of sketches of what it might look like so that we could interest the public and the various approval agencies in what it would be like to persuade them that it would be a very attractive public place. We looked at other alternatives. Here is a stepped wall, which is very expensive--around $35,000.00 a linear metre. Although we have built two of these we won't build any more, largely because we found out how much they cost. This was an attempt to get people down to the water surface so that it would be a very usable interface between the public space of the walkway and the water. We've made models to see what it looked like. I included this section because one of our proposals is to build a fishing pier extending some 100 metres out into False Creek, using rubble left over from Expo. Off to the right and left there would be an artificial reef to create a habitat for various fish. People would fish off this pier and it would become in effect an extension of park space out into the water that could be used by everybody and anybody, not just those with boats or those that want to get wet.

The water quality in False Creek is quite good. It's not for primary contact, but there are a number of fish. Actually one of the big things that happened at Expo this year was that a sea lion came and hauled himself out on the Expo site, and just sat there bellowing. So it is possible for fish to grow here, for fish to live here, grow in the artificial reef area. There won't be any salmon, likely because we don't have any salmon spawning streams any longer in False Creek, but there will be flat fish and bottom fish.

This is a sketch of what that fishing pier might look like against the city skyline sticking some 100 metres out. We are quite likely going to do this after Expo. We began to build a seawall. The first thing we had to do was to stabilize the shoreline. There wasn't any first slide of the shoreline. There wasn't any rationale for the shoreline: it was just there. One of the considerations we had was aesthetics. You will notice the architectural grade concrete piles, the first time the precast companies ever made architectural grade concrete piles. We had to drive them in order to support the seawall. You can see the riprap that's underneath there. We had to do a fair bit of dredging in order to create the shoreline that we wanted. We began construction of the seawall in 1983 and we are still at it.

Here is another shot of the construction going on. You can see that we are working on both the deck-on-pile nearest you and a short section of sheet-pile wall there. We did most of the work from the water because it was much cheaper.

Here is another example of the waterfront under construction, where we defined a vertical edge to the seawall so that you were looking down into deep water. For those of you not familiar with the Vancouver situation, one of the most unique problems we have is the extent of our tide, unlike Baltimore's (some of you may have been to Baltimore's Inner Harbour--it's a wonderful place). Baltimore has a 3-foot tide, Vancouver has a 17-foot tide. So when you have your dock and water surface elevation changing 17 feet twice a day, you have a pretty significant design problem, and if you have to include handicap ramps, it's a very long ramp.

Here is some of our finished seawall. There you can see the supporting beam on top of the piles with the riprap extending down behind it. There will be a deck on top of that, placed right on top of the beam and a grade beam at the back that you can barely see. The stepped seawall is just to the right. One very important consideration of fixing the elevations of these step seawalls was the slime line. Slime does not come any higher than the level of the second step you see there and the elevation is somewhere in the order of minus 1.95 metres below datum.

Here is some finished sheet-pile wall. You can see the construction boat is out there picking up the styrofoam that blew off from some construction site that Expo was undertaking. There is a stepped wall and you can see where the slime line is just extending up to the top. This is the Granville bridge looking towards downtown. Another area where we built a seawall is in the B.C. Pavilion complex in front of the stadium. This is a set of stairs facing south and one of the unique features of this is that the slime line is just at the top of the bottom step. The bottom three steps flood with the highest tides so that there are actually steps right down into the water. These steps were provided here partly in response to some Expo needs to create an outdoor amphitheatre to watch the B.C. Loggers sport show.

This is the B.C. Pavilion, which has a straight building wall going right down into the water. Actually the building is on piles. That's just a concrete facing hiding the piles so that it looks like the building is going directly down into water. We built this building extending beyond the harbour headline and on land we didn't own. After the building was done, which had to be done in order for Expo to meet its deadline, we then talked to the Lands, Parks and Housing and asked them if we could put the building there. Then we went to the federal government and asked them if we could amend the harbour headline. They graciously didn't make us take our building down. Once we got our seawall construction program well underway Expo came back to us and they said they needed more land. They said they were going to build it out in False Creek, build 21 acres of temporary deck in False Creek; and they have done that. The Expo site is 21 acres bigger than what we leased them. They built 21 acres of deck on wooden pile, hollow cord deck, spandeck on top of wooden pile. Today as you travel around in False Creek you'll see a lot of wooden pile. That is temporary deck. It's going to come out after the fair. If anybody wants to buy some I know Expo is willing to sell it cheap.

This is just an example of how Expo has reconfigured the shoreline to add to it. The light-coloured areas are the Expo deck extending out pretty well along their whole site. What you are looking at is the module where the GM Pavilion will be built.

They floated in the wood piles. You can see here the Expo deck under construction, the forest of water-born cranes and the pile drivers that were used to build this decking. You can see more of it around the Expo centre. As I said, 21 acres is a lot. This is what the deck looks like. Its just precast concrete forms all over water.

The next task that B.C. Place was given was to build the host pavilion at Expo '86, the B.C. Pavilion. This was an early model of the B.C. Pavilion. A lovely site on the waterfront was selected, formerly a lumber yard with log booming grounds and all sorts of conveyors and other assorted problems. They actually had dumped lumber slash in to create some of their own fill. We improved the site before we began construction and eventually the B.C. Pavilion complex was built. This is on opening day of Expo. You can see the throngs that are gathered in the B.C. Pavilion underneath the Plaza of Nations. It's been quite a success as I say, during Expo.

In the meantime we land developers were developing, building a seawall. This is the Granville slopes area, which was our first development area. Proposals were made to us. B.C. Place is in a position that of our 224 acres, about 50% will be given over for public purposes. That is roads, parks, rights of way, waterfront seawall, those sorts of things. The other 50% will be developed by the private sector. We will lease or sell this land in the long-term at market prices and the private developers will build the buildings that they choose to build. My task is actually to create the rezoning, the zoning and the subdivision that is necessary for the land-side and water-side development. This is one of the proposals that came to us. This is the building that has now been built. We'll go by it today. You can see that the building is occupied, not by many people yet. The starting price for units in this building on the waterfront is $225,000.

Other proposals were made to us. The buildings shown here aren't under construction yet. Last but not least, for the last 18 months I've been working on the second phase of development in B.C. Place or the first phase of the development of the Expo site. This area labelled North Park on this drawing is at the extreme east end of B.C. Place at the narrow point of the peninsula of the downtown. North Park has been in the rezoning process for some 18 months. Tonight we go to public hearing and hopefully that will wrap all that up. The rest is just to tidy up the servicing agreements that we have and this area is slated to begin development on October 14. We have a contract let already to do some work on the site, and we are looking for our tenant, Expo, to get off immediately.

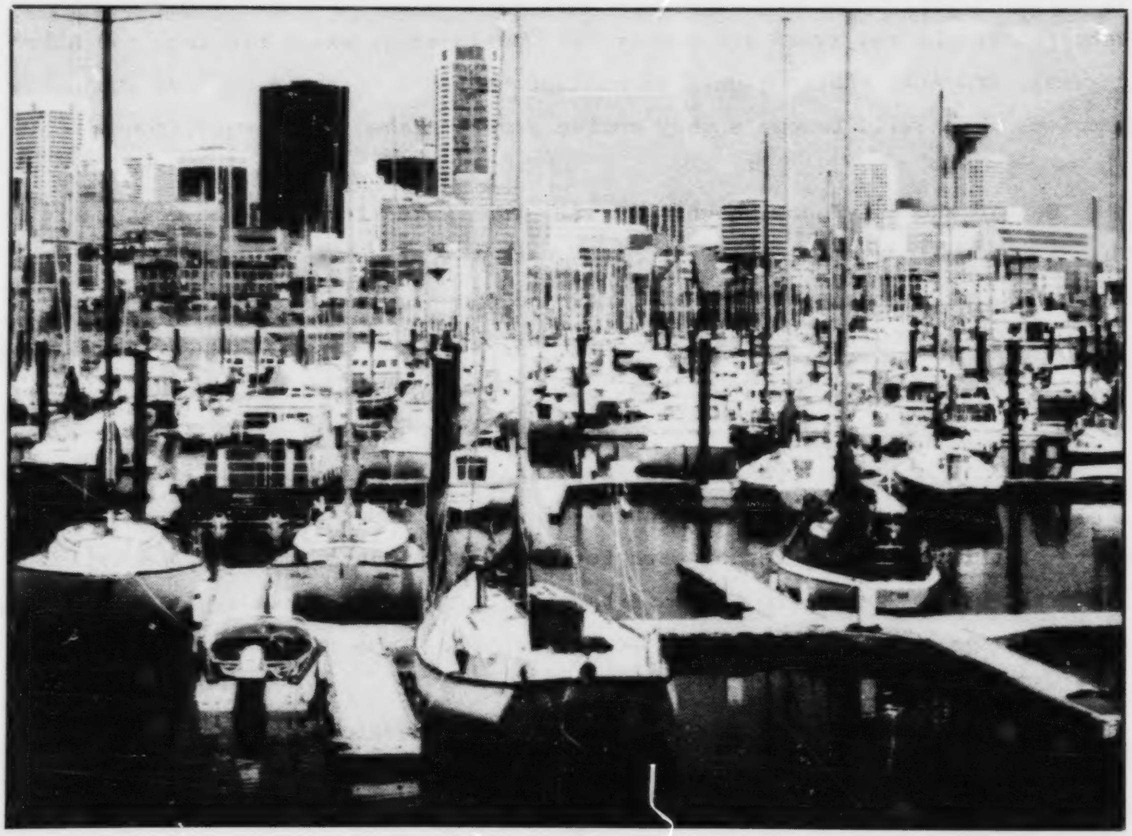
This is a land use plan that was developed by an office which I manage. This is showing the green areas, the waterfront walkways, the parks on the waterfront; the red areas are commercial development, which tie into the ALRT drawing, and ALRT station; down in pink at the left is the B.C. Pavilion complex, which will become a very active people place on the waterfront.

We did sketches showing what it will look like--lovely to be down there. This is actually a portion of the North Park seawall that we are proposing to build. We made models of the waterfront development with residential highrises in the background, lower forms on the waterfront and of course about 4 acres of park down on the waterfront.

Just to emphasize the very extensive park requirements that are here in Vancouver, we are providing, for those of you who are interested in those sorts of numbers, 3.1 acres of park for each anticipated thousand population in North Park. That's the Vancouver average. North Park has about 70 acres in total, which represents about 1/4 of the B.C. Place lands.

More sketches of what the future North Park development will look like. Here is an aerial version looking down towards the waterfront. The stadium is at the top to the right. The artist didn't include it in here. We've imported some designs from London and Bath Crescent and these sorts of areas, if you recognize the Crescent. The architects love them. I'm certain that the building developers are going to have a great many problems. I know that in this area we probably won't have a large marina. B.C. Place has tremendous pressure on it to create marinas. There is a very high demand for marinas in downtown Vancouver. However, at the extreme east end of False Creek is an operating concrete plant and there are strong navigational constraints because of all the cement and aggregate that is barged in. A barge tow-boat has to go underneath three bridges, navigate by four existing marinas, and in this area the navigation requirements are quite constrained because of the maneuvering to get into the barge unloading facilities. We don't anticipate large areas of marina development in the North Park area.

When I'm done I'll paddle off to Hawaii, because every talk needs a sunset. Thank you.



Vancouver's False Creek

PLANNING AND DEVELOPMENT IN THE PORT OF VANCOUVER

prepared by Dick Wright
Real Estate Manager, Vancouver Port Corporation
British Columbia

SPEAKER'S INTRODUCTION

Dick Wright was raised and educated in Vancouver, and is a graduate in economics from the University of British Columbia. He spent the next 20 years with Sun Life Assurance Company of Canada, on the investment and property investment side, 18 of them in Montreal. He returned to Vancouver with the company in the early 1970's. For the following eight years he was managing director of First Capital City Development Company, a subsidiary of British Columbia Buildings Corporation, and responsible for redevelopment in New Westminster.

He joined the Vancouver Port Corporation in August, 1986.

PRESENTATION

The Port of Vancouver is operated by the Vancouver Port Corporation. Our corporation is a federal Crown corporation, which means it is an agency of the Government of Canada. Crown corporations differ from departments of government in fiscal accountability and antonomy. The corporation is accountable in a corporate sense, at the top, and thus has more antonomy than a government department. Crown corporations exist at the provincial as well as the federal government level. The Vancouver Port Corporation exists to protect vital interests of the federal government. Under the Canadian constitution control over shipping, navigation, customs, fisheries and defense in coastal waters are primary responsibilities of the federal government. To secure its interests in shipping and navigation the federal government enacted the Navigable Waters Protection Act shortly after confederation in 1867. We and other port corporations still enforce this Act, and through it we maintain control over shipping and navigation in the national interest. Over the years other legislation and court decisions have defined questions of jurisdiction and administration. But the primacy of the original navigable waters legislation remains intact, and we are given the job of enforcement. Bob Thompson mentioned the question of having to adjust the harbour headline for B.C. Place. This is the kind of thing that would have to be done through our corporation, as part of our enforcement.

Roughly speaking the whole port of Vancouver consists of around 215 square miles of water and over 130 linear miles of shoreline extending from Point Atkinson, which is the lighthouse away out in West Vancouver, in through Lions Gate Bridge, around the inner port and back out again, and then down the coast all the way to the U.S. border. We refer to the area inside the First Narrows Bridge as the Inner Port and that is identified as Burrard Inlet and Indian Arm on the map. When we go on our tour later on today, we are going to be staying within the lower harbour which is roughly the western third of Burrard Inlet. I think you've already got some maps of the lower harbour to use when we go on our cruise.

As this is a conference dealing with submerged lands I feel I should touch on the rather complicated question of jurisdiction in order to establish where the Vancouver Port Corporation, which is a federal agency, concerns itself with submerged lands and where the submerged lands are within the provincial jurisdiction.

There was a judgment of the Supreme Court of Canada in 1984, that ruled that the seabed off the Strait of Georgia belongs to the provincial government. This is the area outside the first Narrows of Burrard Inlet. This judgment clearly meant that the province has certain proprietory rights over the outer port. Incidently, the outer port includes English Bay and the False Creek Expo area that Bob has just shown you. In other words, we have certain rights in the outer port as well, but we don't own the seabed. However, equally clearly the right to administer, manage and control the outer port stayed with the Vancouver Port Corporation, in order that the matters of national interest remain under federal jurisdiction.

Now, just to ensure that your confusion is complete, I would like to explain one exception to these jurisdictional differences. In the outer port there is a little area called Roberts Bank. Some people call it the Super Port. This is an immense pile of coal which any of you who came over from Victoria on the ferry to Tsawwassen would have seen just north of the ferry terminal. Actually it is a 255 acre man-made island connected to the mainland by a 2 1/2 mile causeway which has been developed and expanded over the past 15 years as a bulk cargo facility. I think in 1985 it handled about 16 million metric tonnes of coal. Now jurisdictionally the Vancouver Port Corporation owns the 255 acres of land and 618 acres of deep water berthage adjacent to it. So in the sense of ownership we own the seabed in that defined part of those waters, while the province owns the rest and administers them.

There are two other federal agencies exercising jurisdiction in the Port of Vancouver, the Fraser River Harbour Commission, and the North Fraser Harbour Commission. They have jurisdiction over their respective arms of the Fraser River, which flows into the port of Vancouver just south of the city. Now, the 1984 judgment had no effect on the inner port where we clearly have proprietory rights, ownership of the seabed and the water. (By the way the water is defined in Canada as everything below the high tide line.) We also have acquired some uplands as well.

If we take the inner port, which is Burrard Inlet and the North Indian Arm we have a total area of 14,664 acres which divides up to 848 acres of land and 13,816 of water. The shoreline in the inner port is 100 miles long and this is a principal area of our concern. The inner port is where most of the shipping and port-oriented activity in Burrard Inlet takes place. The upper harbour, which is the easterly two thirds of Burrard Inlet, is less intensively developed than the lower harbour but it does contain a major bulk handling facility and Pacific Coast Terminals as well as three refineries, a log loading terminal and a few lumber-oriented industrial operations.

Many of you would be interested in Indian Arm, which is the upward projection of Burrard Inlet on the map. Indian Arm contains virtually no port facilities. A fiord-like body of water, is a very attractive place to go boating. It's a pity we can't go up there today. There is a fair amount of residential development occurring there and we administer something like 300 waterlots which people are required to lease from us in order to accommodate private floats and matters of that kind. Of course we strictly control the navigation and the harbour headline, speed limits and all these sorts of things in there.

There is a very interesting interface with the public in Indian Arm. It's essentially best described as a massive headache. Most of the people who have the financial capability to have 40-foot boats and wharfs and second homes in Indian Arm also have a propensity for getting in touch with their Member of Parliament or their Minister if they don't like the way certain things are applied. There is a large number of tempests in teapots happening over applications. We have our own police force by the way and they run around occasionally in Indian Arm and give people a little bawling out for breaking the speed limit, and of course that sort of thing bounces around.

The only commercial activity in Indian Arm is in the area of aquaculture. We have several aquaculture ventures that are currently trying to become established. We are rather pleased at the prospect of this kind of activity. We feel supportive toward it. It is unfortunate that we can't go and visit because it is a nice place.

Now that you thoroughly understand the distinction between the outer port and the inner port and the lower harbour and the upper harbour I'm going to try and give you just a bit more of an overview of the operation of the port, which I'm afraid is going to involve more statistics. Most of these apply to the main harbour but some of them are rather general for the whole port.

In terms of tonnage the port of Vancouver is among the top 10 ports in the world. It is the second largest in North America after New York, and it is the largest on the west coast of North America. It is primarily a resource export port. About 90% of our tonnage goes out and a little less than 10% comes in. The total through-put last year was in the order of 56 million metric tonnes. This year it is expected to be nearly 58 million tonnes and the forecast for next year is 59 1/2 million tonnes. The record so far was 1984 when we had 59.3 million tonnes.

Our primary exports last year were coal, which is some 20 million tonnes; grain, 9 million tonnes; sulphur, about 6 million; potash--lumber, about 1.7 million. I am always surprised that the lumber is so low because there is a lot of lumber produced in British Columbia, but a lot of it is not exported by ship. Our primary imports last year, again, were raw resource goods like phosphate rock and salt, raw sugar and steel.

Now we are a deep water port with 30 feet minimum depth along-side all terminals at low tide. That is pretty good when you got 17 foot tides. We are also a natural harbour with no major flows of rivers and therefore very little dredging is required. The tide moves around 6 knots within the harbour. The port is open 12 months of the year. It is never subjected to freeze-up.

On our tour today we are going to be seeing all the terminals. Many of them have been identified in the little map that you have. In all there is something like 33 terminals in the main harbour and that represents about 60 berths. I think we also have something like 21 anchorages which includes English Bay.

Some of the terminals occupy their own property and they lease water lots from us. Some of them lease their entire land from us. There are four major terminals that we own totally. There are two called Vanterm and Centerm which are our two container terminals. Then we have one called Lynnterm in North Vancouver which handles bulk timber, steel, petro-chemicals and that sort of thing. And as mentioned before, we own the Roberts Bank Terminal in the outer port which handles the coal and other bulk resources.

I might mention the container volume in 1985. Containers are dealt with in TEU's, 25 foot equivalent units. Last year we had 168,000 TEU's. In 1986 we anticipate 210,000 and 1987 260,000. So this is a growing business for the port.

Our fastest growing industry recently is cruise ships, cruises to Alaska. There are certain reasons in American law why American ports can't handle passengers going out of the country, or cannot handle them twice. There is a neat little anomaly in your law which gives us a lot of cruise-ship business. Many of you will be familiar with Canada Place. If you aren't you will be seeing it today. It is the building with the sails on top that is down in the central harbour. It is a multi-million dollar complex that was developed--and its currently serving--as Government of Canada Pavilion for Expo. But after next Monday they are going to retrofit the Expo part of it and Canada Place will become a very major convention facility. It is linked to Pan Pacific Hotel in the International Trade Centre. Portions of Canada Place have been functioning for the past year.

Beneath all that, on the lower deck is our new cruise ship terminal which we operate. We in fact invested something like 27 million dollars in the cruise ship facility and it was a great success this year. We also have a secondary cruise ship facility about a mile to the east. It is called Ballantyne Terminal.

In 1981, Vancouver had 186 cruise ships and about 171,000 passengers. This year there are 238 sailings and 325,000 passengers, which in a five year span is a about a 90% increase in passengers. That is primarily attributable, I think, to this new facility. Two hundred sailings are already booked for next year, by the way.

Just east of Canada Place is the Seabus Terminal, which is a municipally-operated transit system that connects some rapid boat movement to the transit system. You can start way off in North Vancouver on the bus system, with one fare come across on the seabus, and go all the way out to New Westminster on the sky train. It is a very nice system. Just east of the seabus, where you are going to see some shore work going on this afternoon, I'm installing a major heli-port terminal. This is going to be a 30,000 square foot floating three-pad device. We are going to be floating it into place in about two weeks. I think it is rather unique. We haven't been able to find too many models in Canada, and we are quite excited to get it going.

I could go on spouting statistics for hours; I am only learning them myself and it's a little bit difficult to get a grasp of. I have to grasp all of this before I can start concerning myself with development. Just for example we administer something in the order of 600 leases and probably just a thousand documents there--mostly water lots of course.

I would like to show you a few views of the lower harbour, just so you know what we are going to be seeing today.

This is a view from the west. It's an area known as Coal Harbour which, as you notice, is mostly marinas and parks at the bottom of the screen. Stanley Park is just on the left. Three-quarters of the way up the screen is Canada Place and you can just identify the sails.

This is Canada Place with a couple of cruise ships in place. Just to the left side or just above it is the Seabus terminal which I mentioned. Just going out of the screen is the property where certain developments are going to take place over the next years. But the helicopter pad will be there.

This is just looking a little further along the south shore of the inlet. This is one of our container terminals known as Centerm. Just tucked in behind it there is a major fish canning operation which has an incredible amount of through-put. It's one of the five best food processing plants in Canada. At the right hand of the screen is the Ballantyne Pier, which is the other cruise ship terminal.

This is Vanterm which is the other container port that we own. This is Alberta Wheat Pool which is one of the largest of our wheat terminals. Just off the screen is the Second Narrows Bridge which defines the main harbour at the east end. At the top of the screen is Lynnterm which is another of our terminals, which serves most the lumber industry and above that is a private seaboard which is also a lumber port. Working our way back along the north shore there is two grain terminals. That looks like Versatile's shipyard. I'm sorry I haven't seen these myself so I'm a little odd. The piece of land at the top of the screen is known as Fullerton Land Fill. It's about a 70 acre piece of land that is potential development. In the foreground is Vancouver Wharfs which is a major sulphur exporting operation. And that's it.

5TH ANNUAL SUBMERGED LANDS CONFERENCE

VANCOUVER WATERFRONT TOUR

Thursday, October 9, 1986

TOUR LEADERS:

John Gerbrandt, Senior Land Officer
Lower Mainland Region, B.C. Lands Division

Dick Wright, Manager, Real Estate
Vancouver Port Corporation

Bob Thompson, Manager
B.C. Place Limited

ITINERARY:

1:00 p.m.	Bus leaves Robson Square for "M.V. Norsal" to commence marine tour of the Port of Vancouver. Points of Interest include Canada Harbour Place, Burrard Yarrows repair docks, Lonsdale Quay, and a variety of shipping terminals handling a range of specialized cargos.
4:00 p.m.	Boat tour concludes; buses return delegates to hotels.

VANCOUVER WATERFRONT TOUR

POINTS OF INTEREST

1. AIR B.C. FLOAT PLANE TERMINAL

   Provides regular scheduled service using Twin Otters to Victoria and Nanaimo.

2. CANADA HARBOUR PLACE CRUISE FACILITY

   Former CPR Pier B.C., this site is being redeveloped as a cruiseship facility and World Trade and Convention Centre. Owned by Canada Harbour Corporation, it serves as Canada Pavillion for Expo 86.

3. CENTENNIAL TERMINAL COMPANY

   Owned and operated by Vancouver Port Corporation, this Terminal has 11 berths and specializes in handling containerized cargo, break-bulk and reefer cargo. Activities include lumber, pulp and general cargo, and container stuffing and destuffing.

4. VANTERM

   Also owned and operated by Vancouver Port Corporation, Vanterm has 5 berths and specializes in handling rolled newsprint, lumber and metal products, grain products, canned goods, pulp, asbestos and reefer products.

5. COLUMBIA CONTAINERS

   Company specializes in recirculating and stuffing containers.

6. ALBERTA WHEAT POOL

   Specializes in handling cereal grains for export. Storage capacity is 282,000 tonnes; loading rates (2 berths) is 1,750 tonnes/hr.

7. LYNNTERM

   Owned and operated by Vancouver Port Corporation, Lynnterm has four concrete berths and specializes in handling forest products, containers, steel and heavy machinery.

8. SEABOARD INTERNATIONAL TERMINAL

   Seaboard Terminal utilizes 3 berths and specializes in handling wood products.

9. SASKATCHEWAN WHEAT POOL

   Specializes in handling cereal grains for export. Storage capacity is 237,000 tonnes and the shipping rate from 2 berths is 2,250 tonnes/hr.

10. BURRARD-YARROWS DOCK

Shipbuilding and repair facilities utilizing three floating docks with lengths of up to 200 metres and lifting capacity of up to 36,000 tonnes.

11. LONSDALE QUAY

Public market and hotel.

12. FIBRECO

Fibreco Export Inc. specializes in handling wood chips for export. Single berth capable of handling ships up to 42,000 dwt; loading rate is up to 1,200 short tons/hrs.

13. VANCOUVER WHARVES LTD.

Owned by Vancouver Wharves Ltd., specializes in handling copper concentrates, lead concentrates, methanol, pulp and paper, potash, phosphates and misc. fertilizers.

CONFERENCE OVERVIEW

presented by Joe Loyer
Conference Host and Executive Director
Regional Operations
Ministry of Forests and Lands
British Columbia

I found the conference fun, highly informative, and I made a lot of new friends. I want to mention a few points made by each of the delegates that were of particular interest to myself.

Monday October 6th **Workshop #1 - Issues in Submerged Land Management: A Regional Perspective**

Session Chairman, Greg Roberts--I like the way Greg was keeping the gate.

British Columbia delegate, Tom Cockburn--interesting point, that aquaculture is a large industry in B.C. It covers 13,000 hectares.

Ontario delegate, Sherry Yundt--Ontario has 225,000 lakes and 5,300 kilometre of shoreline.

New Brunswick delegate, John Kershaw--New Brunswick has 2 1/2 million hectares of submerged lands to manage.

U.S. Virgin Islands delegate, Benjamin Nazario--in 1917 the United States purchased the Danish West Indies for $25 million. Didn't the United States purchase Alaska for $7 million? That's pretty good, there, I'd say.

Florida delegate, James McFarlane--issues are economics and resource protection. Florida is the only state that has a board who make decisions on submerged land. I found that interesting.

Our luncheon speaker the first day was Don Wells. There was a gold rush in Victoria--I didn't know that. There may be another one. There is a mariculture rush, Dave Bulter tells us further on.

Workshop #2 - Valuation and Fee Structures

Session Chairwoman, Carmalita Olivotto--nice job, Carmalita. I used to work with her--bright girl.

Washington delegate, John Demier--they use negotiated royalty rates based on an income approach. That is interesting.

B.C. delegate, Al Domass--Fraser River Harbour Commission--136 miles of shoreline in the Fraser Port. They move 2 1/2 million tonnes of cargo per year. I'll make an interesting comparison a little later on.

B.C. delegate on Marina Pricing Policy, Doug McColl--I like Doug's graphic display. It proves one picture is worth a thousand words. Couldn't understand a thing he was saying, but when I looked at the graphics I understood how to price marinas. It was a nice job by Doug.

Oregon delegate, Ken Doud--rates set on demand values, i.e. market value, value in use.

Workshop #3 - Aquaculture: Management and Changing Technology

Session Chairman, John Bones

B.C. delegate, Dave Butler--well he's the one that said there is a mariculture gold rush in B.C., and there is.

Washington delegates, Steve Tilley and Robert Hoyser--Washington State produces approximately 15% of the country's oysters. I didn't know that, that was really interesting. Aquaculture fees are set by public auction or negotiation rates agreeable to both parties, another interesting approach.

New Brunswick delegate, Doug Kershaw--1983 value of production $1.7 million, 1986 value of production $8 million, forecast 1992 value of production $50 million. That is a large increase, really interesting.

Tuesday October 7th **Workshop #4 - Floating Homes: Management and Changing Lifestyles**

Session Chairman, John Morton

B.C. delegate, John Thompson--a thousand miles of shoreline on the Shushwap Lake system. Currently 500 recreational house boats on the lake system. I was by there and it didn't look like 500 boats to me. That is a lot of boats. And what is even more interesting is that there are no regulations in B.C., they are self-regulating.

California delegate, Lance Kiley--there are two kinds of houseboat, a recreational houseboat and a house on a barge. Some homes cost upward of $200,000. I would like to see those. Largest site, with 2,000 houseboats, is located at Sausalito, California, near San Francisco. I definitely would like to see that area. I've been through there but I haven't seen the houseboats. The largest houseboat is located on a 300 foot barge for sale at $4 million.

Workshop #5 - Influence of Upland Owners on Submerged Land Management

New Jersey delegate, Bill Anderson--I got this out of your paper, Bill: real property law tends to be static in order to be predictable. That is interesting. I really congratulate that particular panel for making themselves heard over the birds, I think that is when it went wild in the aviary next to us.

B.C. delegate, Geoff Moyse--common law riparian rights, I found them interesting.

B.C. delegate, Don Duffy--something stood out--moving islands. I was privy to some of the meetings they had about that problem, where the islands tend to erode and creep.

Idaho delegate, Lance Nielsen--I was beginning to wonder what Lance wasn't involved in, but he spoke on riparian landowner rights, among other things.

Thursday October 9th today, **Workshop #6 - Planning the Vancouver Waterfront**

Session Chairman Jack Hall, I worked with Jack a long time. That was a good session, that one.

B.C. Place representative, Bob Thompson--all I can say is, fantastic. For those of you who haven't seen Ernie the Robot, I think I'll go there and try to bid on him. I saw him in the bank one day, he is about 30 inches tall and he carried out a conversation with a little girl and answered every question that she asked him. He asked a few to the little girl and he knew that she was a little girl. Talked to older fellows too, like me. He would make a good companion.

Port of Vancouver, Dick Wright--Port of Vancouver's 130 miles of shoreline compares with Fraser Port, which has a 136 miles. That was an interesting comparison. Here is a more interesting one, I don't know who put these figures out, but Port of Vancouver's 1984 output was 59 million metric tonnes. That overshadows Fraser Port's 2 1/2 million tonnes by a large margin.

In conclusion, I enjoyed the conference, enjoyed the hospitality rooms, they were relaxing. Those films the other day were pretty good. I watched Benjamin Nazario's, though, more than I watched the other ones. The fishing trip was not good, only one fish, I'll try to do better the next time. The boat trip was really great, first time I was in the navy harbour, I found that to be interesting. I look forward to the dinner tonight. I haven't been to the University and Endowment Lands Gulf Club, so that ought to be fun. We've got our Assistant Deputy Minister, Tom Lee, coming out. He is going to tell you about our Ministry, there are some interesting things. So I look forward to that, and I look forward to the wives coming out again. Tomorrow is Expo. It's been fun, I hope we get together again. It was fun making the conference, organizing it--but it takes two. It takes the delegates and the people from out of the country to make it a real success, and I feel it is a success. With that I will say thank-you.

INVITATION OF THE 6th ANNUAL SUBMERGED LANDS MANAGEMENT CONFERENCE

presented by Benjamin Nazario

delegate from the U.S. Virgin Islands

Joe, I want to thank you very much. I hope I can do just as well next year.

On behalf of the Governor of the Virgin Islands, the Honourable Juan Luis and the Commissioner of Conservation and Cultural Affairs, Angel Le Brun, I cordially invite you to attend the 6th Annual Submerged Lands Management Conference in Charlotte Amalie in the Island of St. Thomas of the U.S. Virgin Islands, in October, 1987.

St. Thomas is the capital of the U.S. Virgin Islands. There are three Virgin Islands. St. Thomas is 22 square miles, St. John is 2/3 national park and is 20 square miles, and St. Croix is the largest island, 82 square miles. Then there about 55 other small islands and keys. The population of the Virgin Islands in total is about 110,000 people. There are about 55,000 in St. Croix, about 45,000 in St. Thomas and about 10,000 in St. John.

The location of the Virgin Islands for those of you who are not familiar with it, is approximately 1,700 miles from New York, and about 1,100 miles from Miami. We are in the Caribbean, right at the border of the Caribbean and the Atlantic Ocean.

It took approximately 19 hours travelling to get here. We left around 7:30 Atlantic Standard time and I got here about 12:50 Vancouver time. The cost of the air fare is about $1,100. I imagine if you live closer, it is going to be less. But looking at the map the other day, we seem to be going diagonally across the area of the submerged lands conference, from the extreme southeast to almost the extreme northwest.

The temperature in the Virgin Islands for October is about 80, 85°F. The rainfall is about two inches. September is the wettest month with about 5.6 inches and November is next with 4.8. April is the driest month.

If you looked at your TV the other day, there is a dispute as to where Columbus actually landed the first time he put his foot on the new world. Interestingly enough, on St. Croix there is a site where Columbus anchored outside. He sent his crew inside on the island to get some water, and the Carib Indians drove them off. We are looking at 1992 to celebrate the 500-year anniversary of that event, which is on November the 13th, 1492. There is a site which is going to be dedicated, I presume, by the National Park Service.

The U.S. Virgin Islands are located outside the U.S. Customs Zone. For those U.S. citizens going to the Virgin Islands, when you come back in you have to go through customs and you will be allowed the $800 deduction. For Canadians I guess you have to go through twice, going through and coming back. I didn't have any problems coming from the Virgin Islands either way. As you can see we got the booze through without any problem.

The Virgin Islands are a unique territory under the federal government of the U.S. and outside of the U.S. Customs Zone. We are considered foreign for certain things and local for other things. We have a tax incentive for those industries that want to locate to the Virgin Islands. One of those industries is the assembly of watches. The watches come from Europe, they are processed in the Virgin Islands with about 51% of the labour and then they go into the U.S. tax free.

The industry of the Virgin Islands is mainly tourism. I was surprised that Dick Wright was talking about cruise ships. That is one of our larger industries. We are starting to home-port some ships that are ploughing the routes through the Caribbean now because we are outside the U.S. Customs Zone. A lot of the ships that do come into the Virgin Islands are registered under Italian and Panamanian companies.

An other industry in the Virgin Islands is petroleum refining. Esso has one of the largest refineries in the world, with a throughput of 750,000 barrels per day when it is going strong. Right now it is only going about 30% because of the oil glut. But they do supplement their state-side gasolines there.

As real estate values in the Virgin Islands go (we are involved with submerged lands but...), a condominium would go anywhere from $90,000 and up. A lot of upland, roughly a quarter of an acre, would go anywhere from $8,000 to $30,000 depending on the location. The waterfront may go anywhere from $20,000 to $75,000.

The Virgin Islands has an Open Beaches Act, whereby anything seaward of the mean high water line is supposed to be open to the public. It's really not owned by anybody because there is no compensation to the upland owner.

The taxes are assessed at 60 percent of the appraised value, which is generally the purchase price, and the tax is 1.2 percent of the assessed value. The Island has a medical facility, one hospital on each of the major islands. The water supply in the Virgin Islands is either from God or from the sea. In other words we have to have cisterns here as part of the Building Code. You have to build a cistern with a certain capacity for the roof area so that you can store the water, or else you have to buy it. The water you buy either comes from the ground, which is potable (it has a lot of minerals in it), it is desalinated water, or it is processed water through the reverse osmosis system.

Going back to some of the highlights of the Virgin Islands, one of the sports is game fishing. The International Game Fishing Association has 21 records held from the Virgin Islands. (The records that have been set for weight and tackle include blue marlin, Cobia, Wahoo, Kingfish and Allison Tuna.) The standing blue marlin record is 1,282 pounds.

The water sports are mostly recreational--scuba diving, bathing. There are crewed boat charters and "bare boat" charters in the Caribbean. The tourist season is from November to December to April. We are going to schedule the next conference for October 5-9, 1987. At that time I expect good cooperation from the Division of Tourism, which comes under our Commerce Department.

The hotel should be in the range of $60 to $80 or 40% of the winter rate. There are taxis available on the island, however there is no meter. It is from point to point. So you should ask the rate before you get on the cab. In St. Thomas there are buses available. The driving is on the left-hand side which corresponds to the Danish heritage, in that before there were cars there were horses and buggies, and the only way to drive with a horse and buggy was on the left-hand side so that you could whip the horse and not be afraid of hitting any branches. We have cable TV--getting back to the modern world.

The music of the Virgin Islands, you have heard it, is more or less calypso or West Indian style, it is a combination of Latin raggae, calypso, African, and country music. By the way, American currency is used here, no funny money, no Monopoly money.

For those of you who would like to go to the Virgin Islands we have an easy-going way. This is a hard show to follow up, you know, for the Virgin Islands. We are a little less more formal and probably more casual. I hope the uniform of the day for the meeting next year would probably be casual, casual but elegant. In other words you can't come in with sandals and a swim suit or something like that.

In finalizing, when I get back I am going to enjoy a holiday, which will be October the 11th. Up here in the States that date is Columbus day. Down in the Virgin Islands it's Puerto Rico Friendship Day. This is in honour of our close alience with the island of Puerto Rico, which is a commonwealth. For those of you who don't know it, we have 26 recognized holidays in the Virgin Islands in addition to Saturdays and Sundays. The only month that we do not have a holiday is August. With that I want to say thank you very much and look forward to seeing you next year.

PUBLIC LAND MANAGEMENT

Dinner Presentation by Tom Lee
Assistant Deputy Minister, Timber and Land Marketing
Ministry of Forests and Lands
British Columbia

INTRODUCTION

Good Evening ladies and gentlemen.

On the matter of tonight's presentation I must be frank with you. There has been a mistake made--perhaps two, perhaps more. On the matter of my choice as the after-dinner speaker you should be aware of three things:

- I do not recall ever having given an after-dinner speech;
- I do not know that I have ever given any speech anywhere that anybody ever enjoyed;
- And, I have never prepared a speech in advance.

These three points are mentioned as a partial explanation of why I was not the first choice as the after-dinner speaker this evening and, to be honest, I do not even qualify as the last choice. I was the only choice.

Having been placed in this situation (you will note to my likely future embarrassment that my assistant, Nadine, is taping this), the second mistake must surely be the choice of subject matter. Now, I have been to a number of after-dinner functions: you tell me if you have ever attended one with such an imposing, dejecting, or unappetizing title as "Public Land Management!" To my staff, who have organized this event, I must ask, "what happened to the standard after-dinner fare? - the old jocks who tell sports stories? - the jugglers, or the dancers and musicians who provide light entertainment as a wind-up to occasions of this nature?

With these opening remarks--and apologies--I now sentence you to a period of post-dinner boredom, which, my staff have advised me, must be sustained for a period of not less than thirty minutes. This may be shortened if all but one of you have politely excused yourself for early retirement with severe symptoms of discomfort.

Your Organization and You

Many of you, probably all, have been through internal processes of setting goals, reviewing missions, establishing annual programs, and analysing your organizational needs. I would like to share with you some of my experiences and thoughts, beginning with a sample of some organizational questions which you might wish to ask of yourself.

In my organization:

1. Is the emphasis on factual analysis to determine the right answer?

   or

   Is the emphasis on examination of the problem to develop the best solution?

2. Is the emphasis on avoiding mistakes and deviations from standards?

   or

   Is the encouragement toward taking chances, risking being wrong, doing what is best?

3. Is the emphasis upon formalized articulation of targets and activities?

   or

   Is the emphasis on informal monitoring and strong ad hoc response?

4. Are decisions based on powered assertion and/or logical persuasion?

or

Are decisions based on participation, asking, listening, negotiating?

5. Is my organization based on policy and procedures?

or

Is my organization based on shared goals, aspirations, interests and needs.

By way of explanation, these questions are drawn from a larger number of questions which formed a review of organizational environment which I administered to my staff. The survey reflects a range in management styles between two types of organizations in the private sector. Both are Canadian companies. One is the Bata Shoe Corporation, one of the largest manufacturers and distributors of shoes in the world. The second is the Canadian Tire Corporation, a distinctively Canadian retailer of automotive parts, hardware, sporting goods, kitchenware, etc. The Bata Shoe Company is a very successful private corporation operating in a bureaucratic mode and its management style is reflected in the first alternatives in each of the questions. The Canadian Tire Corporation is an equally successful business operating in an entrepreneurial mode whose style is reflected in the second part of each question.

I would predict that if this survey (in its complete form) were conducted within your organization you would discover three things.

- Firstly, I would expect that your organization would exhibit a bureaucratic tendency overall.

This need not be interpreted as negative. The Bata Shoe Company is a successful organization. Iaccoca in his autobiography describes, and I assume from his description that he is correct, General Motors as a highly bureaucratized company.

° Secondly, I would expect that you would find that your employees are uncomfortable with your organization's style. That is, they are operating in a bureaucratic mode and want more freedom, flexibility and ability to make or participate in decisions. Your employees, as a group, are more entrepreneurial than your organization.

Again, this may not need to be interpreted negatively if the bureaucratic style suits your management purpose and business needs. However, this question should be examined closely because if this mode does not suit your business needs and your employees are indicating their own dissatisfaction with this style, then you have an important and perhaps serious organizational problem.

° Finally, the third thing I would expect you to discover--and I am talking particularly of government organizations--is that the bureaucratic mode is self-imposed.

The latter issue of self-imposition can be examined by reviewing the statutory, fiscal and policy framework of your organization. Legislatively our agency has relatively defined statutory guidance through the Land Act but its confines can be overridden by a clause in the Ministry Act which says, "notwithstanding the Land Act, the Minister may dispose of land as he sees fit".

If you do find narrow legislative restrictions you may wish to examine these and I expect that you will find that many of these were drafted by your staff or predecessors; can be changed; and do not accurately reflect the political will for simplified, less-constrained decision making.

We also have a relatively flexible arrangement for financing. While working under normal government discipline with regard to operational budgets, our project or capital needs are handled through a revolving fund which, within limits, provides an operating framework whereby we can use the fund as long as we can make money in doing so.

We have found that we have policy restrictions, but as all of you know, 99% of policies are self-created and, ironically, some of them at the wish of past clients who are now confined and struggling within this regulatory framework. Government, in the interest of equity and fairness to all, is most susceptible to policy entrapment. Without checks, it becomes progressively more constraining over time. Regular, critical self-examination is imperative. Take a step backward. See if your policies suit your business. Examine whether they still meet your clients' needs.

I sometimes examine meeting agendas and wonder if the theme of many of them isn't "How Thick is Your Policy Manual?" The participants appear as a group of young children behind the garage playing "I'll show you my rules if you'll show me yours." We examine ourselves internally but not often from an external, client-oriented point of view.

My message to you is that you have an organizational choice between a bureaucratic and an entrepreneurial style. It is the responsibility of corporate managers to accurately choose the one which best suits their business environment. In the public service there is an overwhelming tendency toward a bureaucratic mode. In many cases this style is one of accident, history, fatigue or other forgotten circumstance, not a matter of conscious choice. Furthermore, it may be discovered that this style does not suit your business needs and has a depressive and stultifying impact on your most important resource, your people.

Organizational Choices

The differences between bureaucratic and entrepreneurial styles may be summarized as follows:

Bureaucratic	Entrepreneurial
Product/Service Drive	Customer/User Drive
Reactive	Proactive
Bureaucratic	Participative

A bureaucratic organization has a product/service drive: "I have a bottle of water, one kind. That is what I sell and I'll do the best job I can of being nice about the way I sell it to you." An entrepreneurial organization has a customer/user drive: "I have a bottle of water. If it doesn't quite meet your needs, I'll try to find one that does, and also be nice about the way I sell it to you." Its mission and its programs are not developed for the purpose of the organization, but for the purpose of the client.

The second major organizational distinction is that bureaucratic organizations tend to be re-active, in fact they may even exhibit characteristics of a siege mentality. How many of you feel that you are under attack all the time? I can see by your smiles and some grins that you know what I am talking about. In a reactive mode, a defensive posture, you are exhibiting a distinctive characteristic of a bureaucratic organization. An entrepreneurial organization is pro-active, it moves out of the defensive posture, is searching, anticipating, trying to respond to customer and client needs.

Finally, a bureaucratic organization is rigid, based on policy and procedure. An entrepreneurial organization is participative, it organizes itself to be flexible, responsive in both its treatment of its clients and its staff.

What are the key features of an entrepreneurial organization?

- A customer-defined mission.

- Opportunity-oriented people.

- Clear strategic focus.

- Concern for employee values and needs.

I wish to go over each of these with you, briefly.

Entrepreneurial organizations have a customer defined mission, sometimes referred to as a bottom-up style of organization. In government there is a common misapplication of the meaning of this statement. We tend to use it to mean, "I talked to my field staff." Correct? In an entrepreneurial organization it means that we talked to our customer.

An entrepreneurial organization consists of opportunity-oriented people, I like to tell the story of eel grass. How many of you, (all of the coastal people must) know what eel grass is? A little plant, grass that grows underwater, and it is an important environment for many marine organisms. We have a lot of eel grass on our coast, in fact we have eel grass everywhere. Everywhere there is a development proposal there is eel grass and everywhere there is a development proposal there is the most important eel grass. I have saved the most important eel grass on our coast many, many times now. The eel grass keeps moving around. The story is told to tell you about bureaucratic people. They are the ones that are moving that grass around. They are not opportunity-oriented people, they are out to make things not happen. With the same amount of effort, channeled in a constructive manner, we could have established and retained important habitat instead of exhausting ourselves in lose-lose skirmishes at every location on the coast.

Entrepreneurial organizations have a clear strategic focus. I hesitate to say that because, to me, it conveys a bureaucractic message. I will take a minute to explain what I mean. Everyone here probably has strategic statements, statements documented in those big manuals: page 35, item (b) section (1) - manual 3, volume 1, second edition, if you can find it. In contrast, many entrepreneurial organizations may not ever have written a strategic statement. They don't need to write them down; they are part of a shared belief. Everybody that works for that organization has a sense of commitment and direction and they don't have to refer to any page of any goddam policy manual to find out what it is.

Entrepreneurial organizations have a concern for employee values and needs, and if you work in the public service you will know what a disastrous mine-field employee values and needs occupy. It is, in fact, difficult to imagine such chaos in the field of human resource development as exist within some government departments, organizations, and philosophies. There are a lot of destructive forces at work here: union vs. employers; management vs.

union; line vs. staff; restraint, and re-organization. There are a group of people who distrust each other, a government and a public who distrust bureaucratic management, distrust the people who work for them. Why?

There are many reasons that might be given. I will focus on one that we can do something about: the enormous cop-out by management. We have disguised human resource development in personnel departments and central bureaus when in fact we have been doing little development at all. We have not shown a lot of care about our people, we have not brought them along with us and they are not sharing in the benefits, the satisfactions and, yes, the thrills that make or should make their jobs interesting. I can go into some government offices today, 1986, that I was in 1975, and I can't tell what year it is. I can't see anything that has happened, and that is a tragedy and a misfortune of great magnitude.

Human Resource Management and Organization Change

Assuming that the conditions you find in your organization do not match your business needs and you have a desire to move to a more entrepreneurial style, how do you go about it?

As an advance warning, don't assume that change is simply a matter of rushing home and making your legislation more flexible and revising and simplifying your policy manuals. This is the typical management response and a necessary one, but one which will fall far short of your objectives and very likely aggravate an already unsatisfactory management situation.

The fundamental and most important element of organizational change lies in management of your human resources. I will share with you some of the things which seem to be working for me.

Your Team: Your Clients

- Executive Commitment

The action which we are taking reflects our own desire to move in a different direction. This desire came from our Deputy Minister and from our chief executive offices and requires a strong executive commitment: not the type of commitment that comes from issuing bulletins - "here is our strategic direction folks, follow it up, get on with the job" - but the type of commitment that you see in an individual such as Iaccoca. The message which I am giving to you tonight has been personally delivered by myself to every member of my staff. No organizational unit and no level has been left out.

However, how do you deliver this message without it becoming another top-down initiative of management, signalling another fad in organizational style? Accidentally, through a seminar we were running among senior managers, we came across the set of questions on organizational style which I illustrated earlier in my remarks. This survey, simply and locally administered, showed that our own employees wanted more opportunity for decision-making, more flexibility, fewer rules: they wanted to be involved. The results indicated they wanted a significant but, in my view, attainable shift from a less bureaucratic to a more entrepreneurial mode. This provided a framework for a bottom-up, employee driven change, which was already supported by the executive.

- Client Consultation

Most of you likely perceive yourselves as being in consultation with your clients: more of it is likely needed. I like to think of client consultation, holding a meeting with the mining industry or a wildlife organization, not because I have to, but because I want to. You do not wait for a crisis to develop, you go out and build relationships. It is just as important to have a coffee with a local Mayor because you are in his neighborhood, you have a minute, and you do not have a problem, as it is to hold a meeting because you have a problem to deal with. The formal and informal maintenance of communication is important in doing business, building confidence in you and your organization, and is to be pursued with vigour in a client based organization.

- Opportunity Seminars

We are running a group of seminars this year called "Crown Land Opportunities" and this story has an interesting twist of its own because we have had some difficulty in developing the program. Basically, these were intended as an opportunity for existing or potential clients to discuss within some pre-selected topic area, for example Crown land and tourism, their vision of potentials and opportunities. As this program filtered through to the staff who were in charge of implementation, it changed so that we would go out and tell groups what programs, policies, and procedures we had for tourism on Crown lands. That is, we would go and tell them the rules and ask if we could help. The differences are subtle, but as I indicated to them, that is not what I wanted, I asked them to forget out policies and procedures for a moment, go out without them, ask clients what they would like to do and then see if we could help.

- Feature Client Program

We initiated this year a feature client program. Once a month, or as the opportunity provides, we invite a feature client to our office to talk to our staff. These clients range from a new, family-oriented, aquaculture development through to the developers of Whistler or B.C. Place and outward to major Canadian corporations like C.P. Rail. These businesses, commercial developments, and transportation systems developed on Crown land through our co-operation and assistance. This golf-course club house which we occupy tonight is built on a Crown lease. Many of our people in our local office know this building as a file number; they have dealt with the people who work here on the telephone; they know what is happening here but have never seen it or met the people whose drive and dreams have built it.

Our program brings these entrepreneurs to our offices and gives everyone an opportunity to share in their achievements and to develop pride, client knowledge and organizational commitment.

° Small Business Training

We have over 20,000 existing clients and on an annual basis provide new opportunities to an additional 3,000. While I have not examined it, this may be the most meaningful program of service to small and new businesses in the Province. Many of our clients are entrepreneurs and range from unsophisticated individuals trying to put together a package, hoping they can earn a living and get some bread on the table, through to large multi-corporate structures looking for an opportunity to gobble up the next corporation.

In contrast, most of the people who work in our organization have never been involved in business, 50% of them have probably never worked any place but in government. It is easy to perceive the cultural clash isn't it? How do you close it?

We are proposing that all members of our staff be provided with the opportunity to participate in a small business seminar, to learn of the difficulties of building a business, and to appreciate the client's problem and his points of view. We have also added one important variation to what may appear to be a standard training requirement. Whereas this training would normally be available to senior line staff, we propose that all our staff be eligible. It is important that the person who answers the phone or types the letters have this essential knowledge of our business and our clients, and share the spirit of our service and our mission.

° Negotiating Skills and Client Relations

We have run two programs which have been of special value to us. One of these, negotiating skills, is a must for anyone in our business. Its obvious thrust is to develop within our people the ability to create win-win situations. Its most obvious benefit has been to train our people to approach the problem from the clients' point of view and to try to achieve a solution which is mutually beneficial and acceptable. This program has been directed at senior professional and technical staff.

A second program, client relations, has been made available to all staff. While it lacks the hard business base that the training in negotiations has, its general thrust and its impacts are somewhat the same. Someone has described it as "learning how to say yes, forgetting how to say no". Its products are a staff that are positive, friendly, helpful and courteous.

° Work Ergonomics

I dislike this word so much I usually misspell it or mispronounce it, but it is the best word to describe a process of examining activities and functions in an office.

I had an experience a few years ago when I was in charge of Parks in British Columbia. We operated a lodge and ski-hill--don't ask me to explain why--and it lost money. I asked my people if they thought they could do it better and they said yes. I didn't have a study done, I gave my staff one person who understood business and had excellent skills in working with people. The rules were that I did not want a consultant's report with recommendations; I wanted my staff to test and implement any changes that worked and that they could agree upon. This was a new experience for those people. Someone else had made up all the rules they were working under. Now they had a chance to do it their way. The bottom line is that they instituted changes that saved over $100,000 per year. The management lesson is simple: give your staff an opportunity to participate.

Human Resource Programs - Your Staff

I have just described human resource practices as they pertain to your team and your clients. I am also in the process of restructuring our internal practices as they pertain directly to our employees. Most of these are in the developmental stage at this time and I will give you a brief summary of this five point program.

- Recruiting for Excellence

Our organization has just been through what can best be described as a non-recruitment period because of budget constraints, down-sizing, the need to pull in tight, the need to utilize the people that were available, in some cases the need to accommodate people from other organizations. I am personally determined that that day is over and we must, more than ever, have a recruitment program that brings in the best people that we can find. I have told my employees that this will challenge them, that promotions can not be expected: they have to be earned. I am convinced, once one gets below narrow personal concerns, that all of our people recognize the value of, and are committed to, a recruitment-for-excellence drive. We have initiated as part of this program special training for supervisors and managers.

- Career Path Bulletins

In conjunction with our staff we are preparing for our major job groupings, four or five in all, bulletins which describe generic career path opportunities. These are outlined for career patterns within the Lands Division, for logical transfer opportunities to sister agencies; and in a few instances may include private sector opportunities.

These are seen as a logical adjunct to the recruitment for excellence program, as they enable staff to focus and prepare in a logical manner for the training and requirements of their next career move.

- Career Planning and Career Counselling

If you listen to your staff, you will discover that career planning and counselling are among the strongest areas of complaints that they have. In my experience most of this frustration arises out of three factors.

In the first instance employees (with the exceptions of a select few, usually managers) rarely get the opportunity to utilize the benefits of modern tools and expertise that are available for career planning. This condition is reflected in their own misunderstanding or confusion of their abilities and their lack of clarity even in "next step" career goals or requirements. Costs and logistics make this service virtually impossible to deliver in a large organization. We are developing and testing a self-administered career planning tool which, we hope, will largely overcome these problems without a damaging loss in quality.

The second source of frustration relates to the relationship between career counselling and performance evaluation. In our organization, and I suspect many of yours, these two related, but in fact very discreet activities, occur as one, namely, performance evaluation. If your organization is the same as ours, performance evaluation becomes part of an employee's file record and is subject to appeals, union intervention and various other factors which, at best, make it marginal for its intended purpose and truly make it dishonest as a career planning and development tool. For this reason I have taken the position that employee evaluation is to be separated from career planning and counselling. The latter is a private matter and its use and distribution belongs to the individual.

The final source of frustration is the widely variable skills of supervisors and managers as career counsellors. In fairness they have received little if any training in this area and are operating only with inherent and a few learned skills. In conjunction with our career planning initiative we hope to be able to expand our counselling program for supervisors and managers.

Most organizations are very narrow in their response to an individual's career needs, as practised inside an organization. Don't be surprised to discover that there are supervisors and managers who are reluctant to expand an employee training and development program beyond what is uniquely required for their own work units. I take a much broader position on this matter and believe we should go as far as we can to encourage an individual toward his potential within or outside of these units, recognizing as will happen in many instances, that this may lead to future careers in other organizations.

- Succession Planning and Accelerated Career Development

Many organizations are careless about succession planning, but this is an area where my Deputy Minister has, quite correctly, asked for an improvement. We have responded to this in three ways. The first was a quick one-through of our management ranks to identify some of our key people. The second, a more broadly based and longer term initiative is the career planning and counselling program I have described. The third, currently in the development stage, is an assessment of the application of a mentorship program for accelerated career development and preparation of successor material.

Most of you will probably recognize that, without formal recognition of the practice, you have benefitted from mentorship during your careers. It is my personal belief that mentorship, whether formal or informal, may be one of the few proven methods of developing managers and supervisors. It is my hope, either through our understanding of informal mentorship practises or through the implementation of a formal program, that we will be able to respond to both our organization's and our employees' needs for future leaders. As currently conceived we should be training upwards to 20 people a year to meet our ongoing need for leadership excellence at all levels in our Division.

As a closing remark on Human Resource Management and Organizational Change, I want to tell you of one final idea we are trying this year: it is called "Team-86". I have asked the employees of each of my offices to nominate two people from their fellow employees who best exhibit the following qualities:

- an entrepreneurial drive, an ability to make things happen;
- a dedication to excellence in their work and that of their fellow employees;
- a quality for making their offices a better place to work.

Team "86" will be working on a particular area of Human Resource Management which is weak within our organization: recognition and rewards, but that is less important than the idea. As the nominations are in, I can tell you the criteria were followed, you will recognize from the criteria, these twenty-four people represent the inherent ideals of the type of organizaiton I have been talking to you about. These are a core of people who will be instrumental in accelerating and bringing about change. Many of them, I suspect, will be among our organization's future leaders.

THE FINAL QUESTION - HOW ARE WE DOING?

The final question regarding organizational change is how did it work? How do we know change is occuring?

Some of the change becomes obvious very quickly and I believe that that is a reflection of the type and quality of people that we have in our organization. The response and the initiatives undertaken by my staff to better serve our clients, simplify policies and procedures, and respond to customer needs has been overwhelmingly positive. Let me give one illustration.

I have one office, I won't refer to which one it is, but it is one of our most productive offices. It is also one of the offices I have least enjoyed visiting. I would go there and nobody would say hello to me, and yet they know me well. I found out they really didn't say hello to the customer either. In fact they really didn't say hello to each other very often. That office has changed dramatically in the space of six months. I walk in there now and people take me aside to tell me what they are doing with clients or to tell me about the little office fund-raising project they have going.

I'm hearing from clients of that office, "what are you doing there, what's happening? I've been dealing with these people for years, their interest and service is just terrific."

So, it is easy to measure change: ask your staff, talk to your clients.

I was going to bring with me tonight, but I understand it isn't ready yet, a small item which in many ways is the final test of our confidence in the change we have brought about. As I have said, on the surface it is a small, almost innocuous item.

Most of our customers when they came to our offices leave with a handful of forms, policies, and various materials which apply to their particular interest. As soon as they are out the door they have forgotten the name of the person they have just dealt with, and access back into the office, even by phone, becomes, for them, a task of fumbling through government telephone books and trying to track down a memory or a face that can recall their problem.

We are introducing a client personal folder which will keep all those papers in one place. But the folder is most important for what it says. The front of the folder is very simple. It says, in effect, "you are doing business with us and we are B.C. Lands." On the inside of the cover there is a space which says "Your B.C. Land representative is ______________" and gives the telephone number. This will help the client with his future contacts with our organization. It is the statement across from this that makes this more than a innocuous personal file. The statement says that this organization is dedicated to:

: creative solutions;

: timely delivery;

: sensitive and courteous service.

Now many of you will recognize the significance and the risk of placing that statement in the hands of a customer. This becomes "the Emperor has no clothes" time. For the first time we are saying up front who we are. There will be times when we will be embarrassed by our statements. We will not always find the creative solution that our clients are looking for. It will not always be possible for us to meet our own or our customers' needs for timely delivery. But I do believe that 99% of the time we will be sensitive and courteous and our dedication to this element of service will go a long way with our clients.

With those remarks I close my presentation. As you probably sense, I am proud of our organization, I think we have something going for us. Our people are dedicated and committed to our direction. If any of what I have said makes sense to you when you get home, then I recommend you "go for it." If you do, you are going to have a lot of fun, your people are going to have a lot of fun, your jobs are going to be more interesting, and you won't arrive home so tired at night.

Thank you very much for the opportunity to speak to you. I hope you have had a good conference. Many of you, I understand, are visiting Expo tomorrow and I wish you a good time even though the line-ups are very long. Enjoy yourself and thank you for coming to British Columbia.

FIFTH ANNUAL SUBMERGED LANDS CONFERENCE

APPENDIX I

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87-03-04

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FIFTH ANNUAL SUBMERGED LANDS CONFERENCE

APPENDIX II

SUBMERGED LANDS TENURE POLICY DATA

JURISDICTION:

1. British Columbia
   - a) Ministry of Forests and Lands
     Lands Division
   - b) Fraser River Harbour Commission
2. California
   State Lands Commission
3. Florida
   Department of Natural Resources
4. Idaho
   Department of Lands
5. Maine
   Bureau of Public Lands
6. Minnesota
   Department of Natural Resources
7. New Brunswick
   Natural Resources & Energy
8. New York State
   Office of General Services
9. North Carolina
   Department of Adminstration
   State Property Office
10. Ontario
    Ministry of Natural Resources
11. Oregon
    Division of State Lands
12. Quebec
    Ministere de I'Environnement
13. Saskatchewan
    Ministry of Parks and Renewable Resources
    Resource Lands Branch

14. Texas
    General Land Office

15. Virginia
    Marine Resource Commission

16. Virgin Islands
    Department of Conservation and Cultural Affairs
      Division of Coastal Zone Management

17. Washington
    Department of Natural Resources

Date 86-10-02

SUBMERGED LAND TENURE POLICY

BRITISH COLUMBIA MINISTRY OF FORESTS AND LANDS

LANDS DIVISION

Policy Name/Description	Type of Tenure/Authorizations	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
GENERAL COMMERCIAL applies to use of aquatic Crown land for general commercial purpose.	LEASE - Issued where long term tenure is required or when substantial improvements are to be made or where precise and definite boundaries are required (Legal Survey).	Normal tenure is 30 years for initial and replacement leases.	For type "A" commercial uses (intensive product oriented uses) rental is 8% of land values* (minimum $200.00 per annum; For type "B" commercial use (service oriented purposes) annual rental is 5% of land value (minimum $200.00 per annum).	- Fill areas normally valued at 100% of upland value; - value of authorized fill may be discounted by up to 50% for 10 years where special development costs incurred; - management or development plan required for lease or licence tenures;** - consent of upland property owner normally required if tenure is above the mean low water mark; and may be required if below;** - management plan required for lease and licence tenures;** - lease or licence tenures are normally assignable;** - performance guarantee may be required;** - local zoning and health regulations must be considered.**
	LICENCE OF OCCUPATION - Issued where short term tenure is appropriate, minimum improvements are involved or precise boundaries not required.	Normal term is 10 years for initial and replacement licences.	Type "A" rental is 7.5% of land value; Type "B" rental 4.5% ($200 min/annum).	
	GENERAL LICENCE - authorizes temporary use of an area for short term evaluative or investigative purposes.	Maximum term is 6 months for commercial purpose; 1 year for investigative uses.	$100.00 payable in advance.	
COMMERCIAL MARINAS AND YACHT CLUBS policy applies to the use of coastal and aquatic Crown land for commercial marina developments and yacht clubs.	LEASE - as above.	Normal term is 30 years.	For moorage areas rental is 3.5% of potential gross annual income from moorage for first 15 years and 4% thereafter; Non-moorage annually assessed at 8% (Type A) or 5% (Type B) of land value ($200.00 minimum/annum).	- rental based on % of gross revenue for marina (statutory declaration required) + % of land value for upland & fill; - no rental charge for breakwaters; - potential of 50% reduction in rental fee as offset against special (dredging, breakwaters) development costs.

* LAND VALUE is determined in the following ways:

(i) by the provincial body responsible for property taxation purposes (actual land value);

(ii) by the Ministry based on land appraisals where property tax value has not been determined or is inappropriate;

(iii) by the Ministry based on regional averages (zone land value).

** These comments/considerations apply to all aquatic programs of the Ministry.

Policy Name/Description	Type of Tenure/Authorizations	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
COMMERCIAL MARINAS AND YACHT CLUBS) (con't)	GENERAL LICENCE	Maximum 6 months for marina purposes, 1 year for investigative purposes.	$100.00 payable in advance.	- staged development available to reflect operator requirements (General licence issued for first phase of new development, followed by a lease).
AQUACULTURE policy applies to use of inland and coastal aquatic Crown land for shellfish and finfish production.	LEASE	10 years for initial lease with option for midterm replacement for additional 20 years.	Initial lease at 1% of land value for years 1-5, and 5% for year 6-10 paid annually in advance (min $200.00 annually); replacement rate is 5% of land value.	- production plan must be approved by Environment Ministry before tenure is issued; - diligent use is a condition of tenure; - $1,000,000 liability insurance required per tenure; - new applications require advertising; - multiple site proposals from corporate clients may be phased in; - public right to pass along foreshore must be maintained.
	LICENCE OF OCCUPATION	10 years with midterm renewal option for additional 10 years.	1% of land value for years 1-5 and 4% of land value for years 6-10 paid annually in advance (min $200.00 annually).	
	GENERAL LICENCE	1 year maximum.	$100.00 payable in advance.	

SUBMERGED LAND TENURE POLICY

Date 86-10-02

BRITISH COLUMBIA MINISTRY OF FORESTS AND LANDS

LANDS DIVISION

Policy Name/Description	Type of Tenure/Authorizations	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
PRIVATE MOORAGE FACILITIES applies to use of aquatic Crown land for personal and private moorage (dock, wharf) by individuals, groups of individuals or family units.	LEASE	Normal term is 20 years.	\$200.00 per annum for up to 2000 m^2 of water area and \$1.00/m^2 thereafter up to a maximum rental of \$400.00/annum.	- site plan required; - upland owner consent normally required (depends on location); - all users must be identified on the tenure document (except strata corporations); - \$1,000,000 liability insurance required.
(Facilities which can be removed for winter season do not require tenure).	LICENCE OF OCCUPATION	Normal term is 10 years.	\$400.00 prepaid for the entire term for up to 600 m^2 of water area plus \$1.00/m^2 thereafter to a maximum of \$600.00 per tenure.	
FLOAT HOMES/FLOAT HOME COMMUNITIES applies to use of aquatic Crown land for float home communities (does not include land under jurisdiction of harbour boards or commission)	The Ministry does not encourage the use of Aquatic Crown Land for Float Home Communities and will not accept a formal application. However, proposals may be entertained provided the concept has the support of local government and required zoning. If approval-in-principle is granted, a one year reserve from alienation may be placed over the area pending detailed planning and development.			

SUBMERGED LAND TENURE POLICY

BRITISH COLUMBIA MINISTRY OF FORESTS AND LANDS

LANDS DIVISION

Policy Name/Description	Type of Tenure/Authorizations	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
GENERAL INDUSTRIAL applies to use of aquatic Crown land for industrial purposes, but does not include land under jurisdiction of other Government bodies (i.e. Harbour Commission), loghandling sites, or utilities corridors.	LEASE	50 year term to Crown Corporation responsible for Industrial Development.	Nominal $1.00.	- In absence of market values, aquatic Crown land is normally valued at 50% of upland value, but can range from 10 - 100%; - special environmental considerations apply to aquatic land tenures.
		30 year term for standard lease.	annually at 8% of land value (minimum $200.00 per tenure per year).	
	LICENCE OF OCCUPATION	Normal term is 10 years.	annually at 7.5% of land value (minimum $200.00 per tenure per year).	
	GENERAL LICENCE	Maximum 6 months for industrial use; Maximum 1 year for investigation purposes.	$100.00 /year.	
LOG HANDLING applies to upland and aquatic Crown lands used for log handling operations (i.e. booming, sorting, storage, dumping, etc).	LEASE	Normal term is 30 years.	Annual rental for general log handling use is 8% of zone land value established by Ministry (several pricing zones exist in B.C.). For intensive use (associated with wood conversion facilities) the zone value is doubled (min. $200.00/year).	- where a site occupies more than one pricing zone, the higher zone rate will apply; - application for lease or licence must comply with Provincial Coastal Log Handling Application Guideline.

Policy Name/Description	Type of Tenure/Authorizations	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
LOG HANDLING (con't)	LICENCE OF OCCUPATION	normal term is 10 years.	fees for licences are paid annually at 7.5% of zone land value (2 x for intensive use) or $200.00/year min.	- fills valued at a minimum of 2 x zone value - unauthorized and old (10+ years) fill valued at 100% of upland value - value of authorized fill may be discounted by up to 50% for 10 years where special development cost incurred.
	GENERAL LICENCE	maximum 6 months for log handling purposes; maximum 1 year for investigative purposes.	$100.00 year.	
COMMUNICATIONS AND UTILITIES policy applies to use of Crown land for linear public and private utilities	STATUTORY RIGHT OF WAY	Issued for as long as required or for a fixed term not to exceed 60 years depending on type of use.	Valuation based on zone land values established for this use. Statutory Right of Way is prepaid for entire term at 100% of zone land value (min $200.00).	- engineering reports may be required; - may require intensive project review by other agencies (special review process); - public right of access to foreshore and waterway shall not be unduly impeded.
	LICENCE OF OCCUPATION	Normal term is 10 years; but may be issued for 2 years for feasibility/construction work pending issuance of Right of Way.	Normal rate is 7.5% of zone land value (min $200.00/annum)	
	GENERAL LICENCE	1 year for investigation purposes; 6 months maximum for other purposes.	Documentation and application fees only.	

SUBMERGED LAND TENURE POLICY DATA SHEET

Date Sept/86

British Columbia
(STATE/PROVINCE)

Fraser River Harbour Commission
(AGENCY NAME)

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Industrial & Commercial (includes log processing, fish plants, industrial uses and marinas	Lease	Max. 20 yr. (4 five year terms for rent review)	Utility Value: based on upland value established on a zone basis. Independent consultant establishes upland values at regular interval (usually 3 yrs) Capitalization rate - 8%	All application for lease or construction referred to Fraser River Estuary Management Program (FREMP) for environmental review. Lease is assignable
	Use/occupy permit	1 year	As above	No waterlot survey required. Application referred to FREMP. Permit not assignable.
Private moorage fishing vessels	Use/occupy permit	1 year	Flat rate if riparian owner (currently $90.10/year) Flat rate if not riparian owner (currently $180.20/year)	Not applicable on Provincial lands administered by Fraser River Harbour Commission. Application referred to FREMP. Permit not assignable.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Bridges, pipelines, utilities, etc.	Licence of Occupation	Max. 20 years	Scheduled: per inch of diameter times length in feet Maximum $15.00 *Bridges - flat rate set by Commissioners	"As constructed" drawings used for document Application referred to FREMP Licence is assignable
Log storage	Lease	Max. 20 years	Schedule of log storage is recommended by Public Works Canada. Capitalized at 8%	Waterlot survey required Application referred to FREMP Lease is assignable
	Use/Occupy Permit	1 year	As above	No waterlot survey required Application referred to FREMP Permit is not assignable

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
General Lease Commercial: Income producing uses such as marinas, restaurants, club-houses, recreation piers or facilities, docks, moorings, buoys, helicopter pads, decks or gas facilities.	Negotiated - Lease term shall be limited according to standard commercial practices.	Average 20 years Maximum 49 years	Commercial Use: An annual rental based on any one or combination of the following rental methods, with a minimum rental of $250: (A) A percentage of annual gross income (the percentage being based on an analysis of the market for like uses and other relevant factors); (B) 9% of the appraised value of the leased land.	Authorization of all leasing procedures is by Public Resource Code. The following factors shall be considered by the Commission in determining which rental method should apply: (1) the amount of rental the State would receive under various rental methods; (2) whether relevant, reliable and comparable data is available concerning the value of the land proposed to be leased; (3) whether a particular method or amount of rental would effectively cause an applicant to use more competitive substitute land or to abandon its project altogether; (4) whether the land proposed to be leased has been classified as environmentally significant pursuant to Public Resources Code Section 6371; (5) the monetary value of actual or potential environmental damage anticipated from an applicant's proposed use to the extent such damage is quantifiable; (6) other factors relating to the appropriateness of the proposed rental method.
General Lease Industrial: Uses such as oil terminals, piers, wharves, warehouses, storage sites, moorings, dolphins and islands; together with necessary appurtenances.	Negolated - Lease term shall be limited according to standard industrial practices.	Average 25 years Maximum 49 years	Industrial Use: An annual rental based on any one or combination of the following rental methods with a minimum rental of $250. (A) 9% of the appraised value of the leased land together with 2¢ per diameter inch per lineal foot of pipelines and conduits on the leased premises.	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
General Lease				
Right of Way: Uses such as roadways, power lines, pipelines or outfall lines; except when used only as necessary appurtenances.	Negotiated - Lease	Average 30 years Maximum 49 years	Right of Way Use: An annual rental based on any one or combination of the following rental methods with a minimum rental of $100: (A) 9% of the appraised value of the leased lands, together with compensation for any damage caused to such lands; (B) 2¢ per diameter inch per lineal foot.	
General Permit				
Public agency uses such as public roads, bridges, recreation areas or wildlife refuges having a statewide public benefit.	Permit	Average 15 years Maximum 49 years	General Permits: Annual rental shall be based on 9% of the appraised value of the leased lands with a minimum rental of $50: (A) No rental shall be charged for public agency use of tide and submerged lands if the Commission at its sole discretion, determines that a statewide public benefit accrues from such use;	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
General Permit (Cont'd)			(B) Monetary rental for Public Resources Code Section 6321 protective structures may be waived if the Commission determines that a public benefit accrues from the installation of such structures.	
Protective Structures Public Resources Code Section 6321 protective structures such as jetties, sea walls, breakwaters and bulkheads.	General Permit	Average 30 years Maximum 49 years	General Permits: Annual rental shall be based on 9% of the appraised value of the leased lands with a minimum rental of $50: (A) No rental shall be charged for public agency use of tide and submerged lands if the Commission at its sole discretion, determines that a statewide public benefit accrues from such use; (B) Monetary rental for Public Resources Code Section 6321 protective structures may be waived if the Commission determines that a public benefit accrues from the installation of such structures.	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Non Income Non Income producing uses such as piers, buoys, floats, boathouses, docks, waterski facilities, and campsites not qualifying for a private recreational pier permit under 2002 (f). Other uses may include campsites, cabins, dwellings, arks, houseboats, or boathouses provided that when such uses are located on sovereign lands that such uses are not found to be inconsistent with public trust needs.	General Permit	Average 25 years Maximum 49 years	General Permits: Annual rental shall be based on 9% of the appraised value of the leased lands with a minimum rental of $50: (A) No rental shall be charged for public agency use of tide and submerged lands if the Commission at its sole discretion, determines that a statewide public benefit accrues from such use; (B) Monetary rental for Public Resources Code Section 6321 protective structures may be waived if the Commission determines that a public benefit accrues from the installation of such structures.	
Grazing Lease Grazing Lease: Use includes the feeding of livestock on forage.	Lease - Negotiated	Average 10 years Maximum 10 years	Grazing: An annual rental based on appraised value for the intended use.	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Agricultural Lease Agricultural Lease: Uses may include farming, silviculture and horticulture.	Lease - Negotiated	Average Maximum 25 years	Agricultural: An annual rental based on any one or combination of the following rental methods with a minimum rental of $250: (A) A percentage of annual gross income (the percentage being based on analysis of the market for like uses and other relevant factors); (B) 9% of appraised value of the leased lands.	
Forest Management Agreement Forest Management Agreement: Uses may include reforestation, improvement of timber growth and soil productivity, vegetation control, reduction of fire and erosion hazards, insect or disease control or any other use that enhances the value of lands subject to the agreement.		Average 30 years Maximum 49 years	Forest Management Agreements; Rental shall constitute enhancement of the land's value resulting from the use.	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Salvage				
Salvage Permit: Use includes the salvage of all abandoned property over and upon ungranted tide and submerged lands of the State which property belongs to the State and is under the Commission's jurisdiction pursuant to Public Resources Code Section 6309. The Commission may retain or sell any or all salvaged property or may allow the Permit applicant to retain it.	Negotiated Permit	Maximun 1 year. Will review at end of period for extension.	Salvage Permit: Rental shall be as follows: (A) A rental of $25.00 per annum per acre, computed on a whole or fractional basis, for the total acreage of the permit area; and (B) 25% of the net salvage value up to $25,000 and 50% of all such value over that amount for all salvaged property the salvor is permitted to retain; or (C) the net salvage value of any property the State retains less any rental to which it is entitled; and (D) such other consideration as may be deemed by the Commission to be in the best interest of the State.	
Pier Permit				
Private Recreational Pier Permit: Use is limited to any fixed facility for the docking or mooring of boats	Form Permit	Maximum 10 years. Review at end of period for new permit.	Rent Free	Standard one page form used as official document. Rent free permits are issued for control and study purposes.

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California
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Pier Permit (Cont'd) constructed for the use of the littoral landowner, as specified in Public Resource Code Section 6503.5, and does not include swimming floats or platforms, sun decks, swim areas, fishing platforms, residential, recreational dressing, storage or eating facilities or areas attached or adjacent to recreational piers, or any other facilities not constructed for the docking or mooring of boats.				

General Leasing Practices

(a) This acticle applies to the leasing of all lands under the Commission's jurisdiction for all surface uses except the exploration for or extraction of natural resources including minerals, oil, gas or other hydrocarbons, or geothermal resources or any other natural resources, excluding timber.

(b) Leases or permits may be issued to qualified applicants and the Commission shall have broad discretion in all aspects of leasing including category of lease or permit and which use, method or amount of rental is most appropriate, whether competitive bidding should be used in awarding a lease, what term should apply, how rental should be adjusted during the term, whether bonding and insurance should be required and in what amounts, whether an applicant is "qualified", etc. based on what it deems to be in the best interest of the State.

(c) Leases or permits for tide or submerged lands shall generally only be issued to riparian or littoral upland owners or use right holders, provided however such leases or permits may be granted to the best qualified applicants irrespective of riparian or littoral status.

(d) Leases or permits for school, lieu or indemnity lands shall be for value or value enhancement purposes.

SUBMERGED LAND TENURE POLICY DATA SHEET

Date__________

Florida
(STATE/PROVINCE)

Department of Natural Resources
(AGENCY NAME)

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Structures to provide reasonable ingress and egress and shoreline protection	Consent of Use	Life of project	No charge	Required for: - a single dock which is no more than the minimum length and size necessary to provide reasonable access to navigable waters; - docks that do not preempt more than 1,000 square feet of sovereignty land area for each 100 linear feet of shoreline; - marginal docks and mooring pilings along an existing seawall; - construction of seawalls
				or bulkheads within three feet of the line of mean high water; - placement of riprap within ten feet of the line of mean high water; - dredging or removal of other sovereignty materials; - renourishment of beaches, and. - artificial reefs for public use.

SUBMERGED LAND TENURE POLICY DATA SHEET

Date__________

Florida
(STATE/PROVINCE)

Department of Natural Resources
(AGENCY NAME)

Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Commercial activity or other structure preempting more sovereignty land than required for reasonable ingress and egress.	Submerged lands lease	- 5 years with 5 year renewals - 10 years for aquaculture leases	- $200 processing fee - The annual lease fee will be .07¢/sq. ft./year or 7% of the rental value, whichever is greater. The rental value will be calculated by multiplying the total number of linear feet for rent in the wet-slip rental area times the weighted, average, monthly per linear foot rental times 12. - There is a 30% discount on the annual lease fee for all facilities that open at least half their slips to the general	Required for: - activities which are larger than those which can be approved by letter of consent; - all revenue generating, income related activities; - aquaculture; - oil and gas exploration and development; and, - dead shell and other mining.
			public on a first come, first served basis. - There is a minimum annual fee of $225. - A rate of two times the existing rate is charged for leases in aquatic preserves where 75% of the subject shoreline and the adjacent 1,000 feet on both sides of the lease area is in a natural condition. A rate of up to three times the lease rate may be used in Class I or II	

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Date__________

Florida
(STATE/PROVINCE)

Department of Natural Resources
(AGENCY NAME)

Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Commercial activity - continued -			Resource Protection Areas. - The lease fees for restaurants and other nonwater-dependent structures shall be negotiated on a case-by-case basis. - Lease fees for aquaculture and oil and gas leasing and exploration are determined by competitive bid. - Payment of a 25% one-time premium based upon the value the project adds to the upland appraised value. - For a submerged land lease for structures, there is a 25% surcharge which is added to the first year lease fee to cover any additional costs.	
Public navigation, utility and shoreline stabilization purposes	Submerged lands easement	- Thirty years	- Two hundred dollars processing fee. - The fee for a private easement is determined by an appraisal obtained by the applicant. The fee may also reflect the extent to which the fee is exclusionary and the enhanced property value or profit gained by the applicant.	Required For: - utility crossings; - road and bridge crossings; - groins, breakwaters and other shoreline protection structures; - public navigation project channels;

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Florida
(STATE/PROVINCE)

Department of Natural Resources
(AGENCY NAME)

Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
			- There is no fee for public easements at this time; however we are in the process of preparing a standardized fee.	- oil and other pipelines; - spoil disposal sites; and, - borrow areas for beach renourishment.
Nonprofit uses of sovereignty lands by public or quasi-public agencies	Submerged land management agreement	- Usually 10-25 years	-Currently no charge but we are proposing a reasonable processing fee for the future.	Required for: - Management and protection activities which do not require title interest in state lands. Activities may include endangered species, preserve, rookery, or sanctuary protection, and management of educational, recreational or scientific study areas.
Structures built prior to the date that current rules were in effect.	Grandfather Registration	- Until 1998 at which time they will be converted to leases.	- Two hundred dollars processing fee.	- Required for structures on sovereignty lands in existence which do not now have a lease but would require one if constructed now.

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Florida
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Payment for severed dredge material	One-time payment for dredge fees	Authorization to specific number of cubic yards (one-time specific)	- Depending upon the county in which dredging is proposed, the fee could change from $1.25 to $3.25 per cubic yard with a $50 minimum payment. - Payment may be waived for public projects or grain sieve size or some maintenace dredge projects.	Required for any severance of sovereignty submerged land

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Date 9/24/86

Idaho
(STATE/PROVINCE)

Department of Lands
(AGENCY NAME)

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Commercial Marinas	Encroachment permit provides for review of environmental & navigational impacts of proposed moorage. Leases will only be issued after the encroachment permit is approved.	Indefinite term but cancelled if the marina isn't built within three years.	$50 application/publication fee	Only facilities built or enlarged since 1974 pay rent to occupy sovereign lands. Only 5-10% of existing facilities are under lease.
	Lease: only required on commercial ventures	10 years	$100/acre or 3.75% of gross moorage receipts, whichever is greater, per year	
Condominium style docks, (dockominiums)	Encroachment permit - provides for review of environmental impact of proposed moorage. Leases will only be issued after the encroachment permit is approved.	Indefinite term, but cancelled if the marina isn't built within three years.	$50 application fee	Only facilities built or enlarged since 1974 pay rent to occupy sovereign lands. Only 5-10% of existing facilities are under lease.
	Lease: only required on commercial ventures.	10 years	$100/acre or 5% of typical gross moorage for similar first-come, first-served marinas, whichever is greater.	

Idaho is presently reviewing its sovereign land leasing policy. It appears that non-water dependent uses will be discouraged or prohibited, but individual uses in practice since 1974 will maintain their "grandfathered" status.

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Date 9/24/86

Idaho
(STATE/PROVINCE)

Department of Lands
(AGENCY NAME)

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Log handling and booming	Encroachment permit Lease	Indefinite term 10 years	$50 application fee $100/acre annually	Only facilities built or enlarged since 1974 pay rent. No log booming or handling areas are under lease at this time. No enlarged booming areas have been approved since 1974.
Single family docks	Encroachment permit	Indefinite term	Free	Limited to 700 square feet of decked area.
Floathome	Encroachment permit	Indefinite term	Free	No permits have been issued for floathomes since 1974.
Restaurants	Encroachment permit Lease	Indefinite term 10 years	Free 3.75% of gross receipts annually.	No permits have been issued for floathomes since 1974

SUBMERGED LAND TENURE POLICY DATA SHEET

Date 9/29/86

MAINE
(STATE/PROVINCE)

BUREAU OF PUBLIC LANDS
(AGENCY NAME)

Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Water Dependent & Associated Uses: Policy applies to permanent structures for both commercial and non-commercial purposes. ("Permanent" means occupying submerged lands owned by the State during 7 or more months during any one calendar year.)	Lease - For uses other than those directly related to commercial use of aquatic resources, which occupy over 500 square feet.	Normal term is 30 years.	For general uses, rental is $0.02/s.f. year (minimum $50/year).	--Rental rates limited by statute to $0.04/square foot as of July 1, 1984, which can increase by 10% cumulatively for each year that has elapsed since July 1, 1984. --Rental rate may be determined by appraisal when the rental value is significantly greater than the current standard square foot value.
	- For uses directly related to commercial use of renewable aquatic resource, which occupy over 2,000 square feet.		For use directly related to commercial use of renewable aquatic resources, rental is $0.01/square foot/year (minimum $50/year).	
	Easement - For general projects which occupy less than 500 square feet or for renewable aquatic resource projects which occupy less than 2,000 square feet.	Normal term is 30 years.	$15.00 one-time processing fee.	DEFINITIONS: 1. "Water Dependent Uses" means a use that is functionally dependent on the waterfront location and that cannot reasonably be located or operated at an inland site. Water-dependent uses include, but are not limited to, transfer facilities
				for the purpose of loading and unloading of passengers, water borne cargo and products of the sea; lobster impoundments; and mooring, berthing and launching facilities for watercraft. 2. "Water Associated Use" means a use which is directly related to a water- dependent use. Water associated uses include, but are not limited to, watercraft construction, maintenance, storage and repair, fish processing facilities, terminal facilities related to the loading and unloading of passengers, water borne cargo and products of the sea; marine science laboratories; maritime museums and aquariums requiring flowing saltwater.

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MAINE
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BUREAU OF PUBLIC LANDS
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Fill and Upland Uses - Policy is to deny these projects unless certain conditions exist.	Lease - same as above	Normal term 30 years	Rental is $0.04/square foot/year (minimum $50/year)	Rental rate may be determined by appraisal when use is for upland purpose or area is filled. Conditions - A conveyance for filling may be granted if (a) There is neither a practical alternative to filling for use of the proposed site nor a reasonable opportunity for relocation to another suitable site that does not require filling; and (b) Public trust rights and purposes and other public rights and customs will not be unreasonably impaired; and (c) All appropriate regulatory permits shall be obtained. -A conveyance for upland use may be granted if: (a) The municipality
	Easement - same as above	Normal term 30 years	$15 one-time process fee.	
				involved has zoned the area for non-marine uses and the zoning has adequately considered provisions for marine uses and the public trust doctrine and rights thereunder, and other public rights and customs; (b) The project is not feasible at any reasonably available alternative site; (c) There is no current or reasonably anticipated unmet demand in the area for water dependent or associated uses; and (d) Public trust purposes and other public rights and customs will not be unreasonably impaired.

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				DEFINITION - "Upland Use" means a use which can operate in a location other than on the waterfront. Examples include, but are not limited to, hotels, condominiums, other residences, restaurants, retail stores and offices.
Municipal Uses - Policy applies to municipal use of submerged land for projects such as boat ramps or sewer and water functions.	Lease - same as above	Normal term is 30 years.	No rental provided there is free public access or the project does not generate general revenue.	Lease is non-assignable. To the extent that a municipal use of submerged lands is for generating general revenue, is operated by a commercial enterprise or is otherwise an amenity in furtherance of a commercial purpose, then all standard lease fees, terms and conditions will apply.
Dredging - Policy applies to all dredging projects on submerged lands	Lease - For all dredging projects.	5 years	Rental is $75 one-time fee or on a volumentric basis	Where dredged materials are removed for profit or where dredging is for non-navigational purposes, the rental fee may be established by appraisal based upon the fair market value of materials removed.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Utility Cables - Policy applies to commercial and non-commercial cables.	Lease - For cables over 500 ln. feet.	Normal term is 30 years.	Rental is $0.04/sq. foot/year	One foot right of way is assigned.
	Easement - For cables under 500 ln. feet.	Normal term is 30 years.	$15 one-time processing fee.	
Pipelines - Policy applies to commercial pipelines. Does not include quasi-municipal sewer and water district projects.	Lease - For pipelines over 500 sq. feet.	Normal term is 30 years.	Rental is $0.04/square foot/ year.	Minimum one foot right of way assigned. Rental may be a volumetric rate based upon volume of material transported, determine by appraisal.
	Easement - For pipelines under 500 sq. ft.	Normal term is 30 years.	$15 one-time processing fee.	
AQUACULTURE - Policy applies to scientific research or aquaculture of marine organisms. Program responsibility lies within the Department of Marine Resources.	Lease - A lease shall not exceed an area of 5 acres. No applicant shall be permitted to lease more than 200 acres.	Term shall not exceed 10 years.	Current rental rate is $15/acre.	Lease shall not be transferable. Adjudicatory hearing process to assess impact of project on ingress and egress of riparian owners, navigation and fishing. Lease conveys limited rights for individual to cultivate and harvest specific species from lease area.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Utility Rights-of-Way. Electric cables, gas lines, water & sewer telephone, cable tv etc.	License	25 or 50 years Applicants choice	Published rate tables are contained in formal rules. Full license fee is paid in advance. Fee is based on length and width of right-of-way.	- License required for all crossing over, under, or through the public waters of the state. - No "land" value is under the formula.
Commerical Marina's	Lease	40 years/40 year renewal option	Negotiated - based on a flat occupancy fee plus a percent of Revenue or slip rentals.	- Special legislation is guiding this first commercial marina lease on DNR lands.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
All other works in the beds of public waters.	Permit	Varies; depends on size of project	Set permit fees established by rule.	- Fees do not address the interest of the states submerged lands. - Permit is given based on engineering and environmenta concerns.

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New Brusnwick
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Natural Resources & Energy
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Commercial Wholesale or retail sale of goods or services.	Lease Issued to accommodate long term occupation of Crown land. Site Development Plans and Surveys are required. Authorized by N.B. Lieutenant-Governor in Council.	10 years - negotiated at end of term.	Economic Rental Annual rental equal to 10% of the market value of the demised lands.	Lobster Pounds.
	License of Occupation Issued to allow occupation of land pending the issuance of a lease. Surveys not required. Authorized by Minister of Natural Resources and Energy.	Up to 3 years.	Same	
Industrial Manufacturing, processing, or disposal operations.	Same	Same	Same	Fishing Processing Plants Piers Canning Factories

Note: In general, if a License of Occupation under Section 26 of the N.B. Crown Lands and Forests Act is issued to allow immediate occupation of land pending a lease, an economic rental will be charged. However, depending on circumstances, a flat annual fee of $55.00 may be charged. The latter rate is more typical of uses of an experimental nature.

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New Brusnwick
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Natural Resources & Energy
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Recreational				
Private recreation use by individuals or groups of individuals of restricted membership.	Same	Same	Same	Marinas
Utility				
Power corridors.	Same (may also be an easement - see "Communication".	Same	Same	Submarine Electric Cables

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Natural Resources & Energy
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Transportation	Same	Same	Same	Ferry Landings
Aquaculture Culture of finfish and shellfish and includes depuration facilities.	Same	Same	Economic Rent: class assessment of $250.00 per ha. ------------------------------ License of Occupation is issued to cover experimental phase and annual fee is set at a flat $55.00	Salmonid grow-out sites. Mussel and Scallop grow-out sites. Depuration facilities.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Communication Communication related facilities.	Easement	In perpetuity.	One time fee based on market value of the demised lands.	Submarine telephone lines.

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Submerged Land Grant-Private applicant to use sovereign land for private/ Comm use	Full Beneficial Enjoyment of submerged land. Normally for purpose of fill. Letters Patent Issued	Life Full Fee 5 Yr improvement clause	Cost based on 50% of upland value (vacant and unimproved)	Special conditions and terms and conditions are added as necessary to protect the Public Trust. Application requires Survey, Abstact, Posting serving, other State and Federal Agency Review. Applicant must be upland Owner.
Lease (same as above)	Term lease with special conditions and terms to fit the needs of the applicant.	25 yr Max. Renewal is an option.	Negotiable % of Gross income. Value based on upland diminised for Rapairian Right and improvements.	Same as above

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Easement	Special use areas Docks, Marinas	1 Year to perpetuity	Base in the past on % of upland value diminishddfor Raparian Right, improvement and time	Appurtnant Easements must have owners conse
Pipeline, wire crossings Private Corp. Telephone Co (exempt)	Cable crossings, wire crossings	1 Year to perpetuity	Based on a price per linear footfor a 30' swath. Current rate $10. a foot.	Upland consent or owner ship required. Survey reguired
Letters of Consent	Special Use Areas	Revocable	No Charge	Special conditions
Licenses	Removal of Sand/Grave	1 year	$.50 cubic yard	Bond Required Insurance min. $1,000,0 Labor restictions Affirmative action etc

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North Carolina
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
SIMPLE RIPARIAN ACCESS - applies to all uses except commercial, aquaculture and mineral rights	NONE	NONE	$100 administration fee	Includes marinas, etc.
COMMERCIAL WHARFAGE - on a case-by-case basis exceptions to the general exclusion is made	LEASE	Normally 25 years	No fixed rate	Limited to large commercial facilities for use in shipping

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AQUACULTURE - limited to mollusks and does not allow water column occupation in dedication	LEASE	10 years	$5.00 per acre per year	
MINEARL RIGHTS	LEASE	25 years	Return contingent on recovery	Two leases are presently held by one company for mining phospates from the bed of a major coastal river. Subject to environmental permits

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ONTARIO
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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
MANAGEMENT OF CROWN SHORELANDS (A.k.a. "Free Use" policy) Existing private (non-commercial) waterfront facilities e.g. small docks, boathouses without living accommodations, breakwalls with minor backfill. New Landowner must first seek permission from the District Manager of the Ministry of Natural Resources.	NOT REQUIRED Where all of the special considerations have been met. Where one or more of the special considerations have not been met, the occupant shall be asked to take appropriate corrective action, failing which the structure may be viewed as an unauthorized occupation of Crown land and dealt with as such.	NOT APPLICABLE	Free use	Where the structure: - is used strictly for private non-commercial purposes; - is mutually considered to be a necessary adjunct to the use and enjoyment of the adjoining dry land property; - is situate directly in front of the dry land parcel; - does not interfere with neighbours' use and enjoyment of their waterfront; - does not obstruct any drain or detrimentally alter the natural movement of water; - has been approved or exempted by Transport Canada under the Navigable Waters Protection Act if required; and - in the case of a boathouse or other building, consists

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				of a single storey containing no living accommodation, kitchen or toilet facility
PRIVATE (non commercial) where occupant does not qualify for free use or chooses to seek authority rather than be under the "free use" policy and COMMERCIAL in cases where occupant derives little or no income directly from use of the waterlot, e.g. a dock in front of a lodge, store or campground.	LAND USE PERMIT	To December 31, 1995	One time administrative fee of $25.00.	This is a temporary compromise (till 1995), between free use and regularization at full fees.

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PRIVATE FACILITIES (e.g. boathouses with living accommodation) where occupant wants better tenure than that provided above.	LAND USE PERMIT	1 to 10 years	Minimum rent 3% of market value	Applicants qualified to obtain tenure for water lots are: 1. A riparian owner. 2. An applicant whose land lies immediately behind a shoreline road allowance or 66' Crown shoreline reserve. However, if the 66' strip is owned by a municipality the applicant must first purchase or lease the strip or obtain written permission from the municipality to use the strip and riparian rights.
	LICENCE OF OCCUPATION	Indefinite period	Minimum rent 4% of market value	
	LEASE	The expected duration of the boathouse and long range land use plan of the area	Minimum rent 5% of market value	
COMMERCIAL (Income producing) & INDUSTRIAL	LAND USE PERMIT	1 to 10 years	Minimum rent 4% of market value	
	LICENCE OF OCCUPATION	Indefinte	Minimum rent 5% of market value	
	LEASE	The expected duration of the proposed use of the land as well as the long range land use plans for the area.	Minimum rent 7% of market value	

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CAUSEWAYS OR BRIDGES	LAND USE PERMIT	1 to 10 years	Minimum rent 3% of market value	If road, of which causeway or bridge forms a part, is private.
	LICENCE OF OCCUPATION	Indefinite	Minimum rent 4% of market value	
	LEASE	As required	Minimum rent 5% of market value	
	LETTER OF PERMISSION	Indefinite	No charge	If road of which causeway or bridge forms a part, is open to the public or will ultimately be open to the public.
SMALL HYDRO POWER SITES Sites with a power potential of less than 20 megawatts (20,000 Kilowatts)	LAND USE PERMITS	Time limit - while feasibility studies or engineering investigations are carried out. - covering the period of development.	Normal LUP fees (e.g. 4% of land's market value).	
	WATER POWER LEASE AGREEMENT	At end of the period of development when the site is producing power	Rent for lease is based on amount of power generated and adjusted annually in accord with changes in the Consumer Price Index.	For some new water power developments, payment for power generated may be waived for up to first 10 years.

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COMMERCIAL MARINAS AND MOORAGES applies to small harbors, boat basins or moorage facilities providing dockage for small craft	LEASE - issued for publicly or privately owned facilities with floats or docks having a surface area of 2,250 square feet or more that offer boat moorage, boat rentals, boat storage, marine service and supplies of any combination thereof	Normal term is 20 years for initial and renewal leases	$400 for the first acre or any portion thereof, and $240 for each additional acre within the leasehold area per annum; rent adjusted annually based on change in local Consumer Price Index	-Adjacent upland owner has "preference right to lease -When preference right is waived, area is advertised and competitively bid -No lease required for facilities with less than 2,250 square feet surface area -Annual rental redeterminations subject to Leasing Rules in effect at time of redetermination
PRIVATE DOCKS, FLOATS AND BOATHOUSES applies to structure constructed for the personal, exclusive use of the owner, built over or floating upon the water and used as a landing or storage place for small craft.	LEASE - issued for facilities having a float, dock or boathouse surface area greater than 1,000 square feet	Normal term is 20 years for initial and renewal leases	$400 for the first acre or any portion thereof, and $240 for each additional acre within the leasehold area per annum; rent adjusted annually based on change in local Consumer Price Index	-Adjacent upland owner has "preference right" to lease -When preference right is waived, area is advertised and competitively bid -No lease required for facilities with less than 1,000 square feet surface area -Annual rental redeterminations subject to Leasing Rules in effect at time of redetermination

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HOUSEBOATS AND HOUSEBOAT MOORAGES applies to floating structures capable of being used as residences	LEASE	Normal term is 20 years for initial and renewal leases	$400 for the first acre or any portion thereof, and $240 for each additional acre within the leasehold area per annum; Rent adjusted annually based on change in local Consumer Price Index	-Adjacent upland owner has "preference right" to lease -When preference right is waived, area is advertised and competively bid -Annual rental redeterminations subject to Leasing Rules in effect at time of redetermination
EXTENSION OF UPLAND USE applies to uses that are not water-related or water-dependent. Example: apartments and private residences, restaurants and bars, office bldgs. and retail sales outlets; private, commercial, or industrial	LEASE	Normal term is 20 years for initial and renewal leases	6% of the per acre appraised value of the adjacent upland; Rental is subject to redetermination at five-year intervals Rental is subject to appeal	-Adjacent upland owner has "preference right" to lease -When preference right is waived, area is advertised and competively bid -Annual rental redeterminations subject to Leasing Rules in effect at time of redetermination

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LOG STORAGE applies to unbounded water surface area used for mooring and storing rafts	LEASE	Normal term is 10 years for initial and renewal leases	$200 for the first acre or any portion thereof, and $20 for each additional acre within the leasehold area per annum; Rent adjusted annually based on change in local Consumer Price Index	-Adjacent upland owner has "preference right" to lease -When preference right is waived, area is advertised and competitively bid -Annual rental redeterminations are subject to leasing rules in effect at time of redetermination
LOG BOOM AREA applies to a water surface area bounded by floating, connecting logs and used for confining, grading, and sorting logs, and assembling log rafts	LEASE	Normal term is 10 years for initial and renewal leases	$200 for the first acre or any portion thereof, and $20 for each additional acre within the leasehold area per annum; Rent adjusted annually based on change in local Consumer Price Index	-Adjacent upland owner has "preference right" to lease -When preference right is waived, area is advertised and competitively bid -Annual rental redeterminations are subject to leasing rules in effect at time of redetermination

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AQUACULTURE applies to the culture and/or farming of food, fish, shellfish and other aquatic plants and animals in fresh or salt water areas.	LEASE	Any period up to 20 years if the proposed use may be reasonably expected to exist for the period of time requested	Rent to be set by Division staff appraisal. Rent is typically expressed as a percent of gross income.	-Adjacent upland owner has "preference right" to lease -When preference right is waived, area is advertised and competitively bid
CONDOMINIUMS AND DOCKOMINIUMS applies to facilities subject to unit ownership	LEASE	A period which allows the owner to amortize the investment under generally accepted accounting procedures	Rent to be set by Division staff appraisal	-Adjacent upland owner has "preference right" to lease -When preference right is waived, area is advertised and competitively bid

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QUÉBEC
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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
General industrial and commercial Without terracing	Lease, long term (five years or more) A lease for more than five (5) years for public water shall be registered	25 years maximum	10% of value, minimum 200 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable

VALUE: Means the total obtained by applying the unit rate of the adjoining riparian land to each square metre of the public water.

UNIT RATE: Means the assessment per square metre of land as set on the property valuation roll on the date of acceptation of the terms of sale ou lease offered by the Minister or failing such assessment 0,15 $ per square metre.

EXCEPTION: This regulation does nots apply where the use of public water is required by the Goverment of Canada or any of its departements or agencies.

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
General industrial and commercial Without terracing	Annual lease	One year automatically renewed	10% of value, minimum 200 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2)
	Occupation licence	One year automatically renewed, maximum 25 years	5,50 $ per linear metre, minimum 25$	Comply with the municipality and regional county municipality regulations applicable

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General industrial and commercial Without works	Lease long term (A lease for more than five (5) years for public water shall be registered	25 yeard maximum	10% of value, minimum 200 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable
	Annual lease	One year automatically renewed	10% of value minimum 200 $	

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
General industrial and commercial Terracing before and during construction	Lease	maximum 5 years	10% of value, minimum 200 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable
General industrial and commercial Terracing after construction	Lease, long term (A lease for more than five (5) years for public water shall be registered)	25 years maximum	10% of value, minimum 200 $	
	Annual lease	One year automatacally renewed	10% of value, minimun 200 $	

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Private facilities Work without terracing	Lease, long term (A lease for more than five (5) years for public water shall be registered)	25 years maximun	5% of value minimum 200 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Private facilities Work without terracing	Annual lease	One year automatically renewed	5% of value, minimum 25 $	Consent of adjoining riparian land owner
	Occupation licence	One year automatically renewed	1,50 $ per linear metre, minimum 25 $	Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2)
Private facilities Without works	Annual lease	One year automatically renewed	2% of value minimum 25 $	Comply with the municipality and regional county municipality regulations applicable

SUBMERGED LAND TENURE POLICY DATE SHEET

Date: 1986.09.25

QUÉBEC
(State/Province)

MINISTÈRE DE L'ENVIRONNEMENT
(Agency name)

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Private facilities Terracing before and during construction	Lease	Maximum 5 years	5% of value, minimum 25 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Private facilities Terracing after construction	Lease, long term (A lease for more than five (5) years for public water shall be registered)	25 years maximum	5% of value, minimum 25 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable
	Annual lease	One year automatically renewed	5% of value, minimum 25 $	

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Public facilities Work without terracing	Lease, long term	25 years maximum	5% of value, minimum 25 $	Consent of adjoining riparian land owner
	Annual lease	One year automatically renewed	5% of value minimum 25 $	Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2)
	Occupation licence	One year automatically renewed	1,50 $ per linear metre, minimum 25 $	Comply with the municipality and regional county municipality regulations applicable
Public facilities without works	Annual lease	One year automatically renewed	2% of value minimum 25 $	
Public facilities Terracing before and during construction	Lease	5 years maximum	37 $ per hectare, minimum 25 $	

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Public facilities Terracing after construction	Lease, long term (A lease for more than five (5) years for public water shall be registered)	25 years maximum	37 $ per hectare, minimum 25 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable
	Annual lease	One year automatically renewed	5% of value, minimum 25 $	

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Marinas (deemed to be private non-profit) Without works	Lease, long term (A lease for more than five (5) years for public water shall be registered)	25 years maximum	2% of value, minimum 200 $	Consent of adjoining riparian land owner Certificat of authorization issued under Environnement Quality Act (R.S.Q.,CQ-2) Comply with the municipality and regional county municipality regulations applicable
Marinas (deemed to be private non-profit) With terracing	Lease, long term (A lease for more than five (5) years for public water shall be registered)	25 years maximum	5% of value, minimum 200 $	

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POLICY NAME/DESCRIPTION	TYPE OF TENURE/AUTHORIZATION	TERM OF TENURE	PRICING RATIONALE/ RENTAL RATES	COMMENTS/SPECIAL CONSIDERATIONS
Aquaculture	Lease	20 years maximum	15 $ per hectare, minimum 40 $	The validity of the lease is conditionnal on the obtaining by the lessee, then the maintenance of the licence to operate a fish-breeding plants or to cultivate or harvest aquatic plants on a commercial bases in accordance with theAct respecting commercial fisheries and aquaculture (R.S.Q., c. P-9.01).

SUBMERGED LAND TENURE POLICY DATA SHEET

Date August 26, 198

Saskatchewan
(STATE/PROVINCE)

Parks and Renewable Resources
Resource Lands Branch
(AGENCY NAME)

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Policy Name/Description	**Type of Tenure/Authorization**	**Term of Tenure**	**Pricing Rationale/Rental Rates**	**Comments/Special Considerations**
Wild Rice	Permit - issued for trial or start-up period while developing rice beds - not transferable	Annual - generally a maximum of 3 years.	25¢/ha/year	Applicants must be at least 18 years of age and resided in Saskatchewan at least 3 months before applying. Same applies to shareholders or members if applicant is a co-op or corporation. In the north, applicants must have lived in the north for 15 years or half of their life. Maximum area per licence or permit is 400 hectares. Corporation maximum is 2000 hectares.
	Licence - must show that area is commercially viable - is transferable	up to 10 years	$2.50/ha/year	
Docks & Boathouses	Permits	Annual	for 1986: Private - $9.20/front metre minimum rent is $27.60 Commercial - $11.40/front metre minimum rent is $34.20.	In 1987 rates for docks to be reduced and increased for boathouses.
Wharves	Administration and control transferred to the jurisdiction usually the Federal Government.	Indefinite, as long as it is required	no charge	

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Saskatchewan
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Policy Name/Description	**Type of Tenure/Authorization**	**Term of Tenure**	**Pricing Rationale/Rental Rates**	**Comments/Special Considerations**
Commercial Houseboats	Outfitters Licence	Annual - renewable	$50.00/year	This is a trial period to determine problems with environment protection, reaction of cottagers, effect of fish population and viability. Operator must have base facilities usually under lease or freehold. Land Lease fees would apply. Payment of taxes would be required.
Aquaculture (Fisheries Branch)	Commercial Licence	Annual	$15.00/year	To stock public winterkill waters with Rainbow Trout. Does not confer exclusive water use rights

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
PUBLIC USES Recreation, estuarine preserves, wildlife preserves, scientific research	COASTAL LEASE	Negotiable	Private Activity Filing fee - $5.00 Annual fee - $5.00 minimum, negotiated rate Commercial Activity Filing fee - $50.00 Annual fee - $100 minimum, negotiated rate Public Activity Filing fee only - $5.00	**Commercial activity**—Activity which is designed to enhance or accommodate a profit-making venture or is associated with a revenue generating activity. **Private activity**—Activity which is not performed by a public entity, is not designed to enhance or accommodate a profit making venture, and is not associated with a revenue generating activity. **Public activity**—Activity which is performed by a public entity and is not designed to enhance or accommodate a profit making venture, and is not associated with a revenue generating activity. **Public entity**—City, county, state agency, board, or commission, or any other political subdivision of the state except a navigation district
PRIVATE PIERS OR DOCKS 100 feet long or less and 25 feet wide or less that require no dredging or filling	STRUCTURE REGISTRATION	Perpetual	Filing fee only - $5.00	School Land Board approval is not required for construction, but structure location must be registered.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
OTHER PIERS AND DOCKS	COASTAL EASEMENT	Negotiable	Private Activity, structure 300 feet long or less and 2,500 feet square or less: Filing fee only - $5.00 Private Activity, structure more than 300 feet long or 2,500 feet square: Filing fee - $50.00 Annual fee charged for area in excess of above dimensions - $.10 per square foot, $100 minimum Commercial Activity Filing fee - $50.00 Annual fee - $.20 per square foot or negotiated rate, $100 minimum Public Activity Filing fee only - $5.00	School Land Board approval is required prior to construction. Issued to owners of littora property adjacent to state-owned submerged land.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
MARINAS	COASTAL EASEMENT	Negotiable	Boat Slips in Clear Lake Filing fee - $50.00 Annual fee - $3.60 per linear foot or negotiated rate Boat Slips in Other Areas Filing fee - $50.00 Annual fee - $2.88 per linear foot or negotiated rate	
WHARVES	COASTAL EASEMENT	Negotiable	Filing fee - $50.00 Annual fee - $.30 per square foot or negotiated rate, $100 minimum	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
BREAKWATERS, JETTIES, GROINS	COASTAL EASEMENT	Negotiable	Private Activity, structure 300 feet long or less: Filing fee only - $5.00 Private Activity, structure longer than 300 feet: Filing fee - $50.00 Annual fee - $.10 per square foot, $25 minimum Commercial Activity Filing fee - $50.00 Annual fee - $.20 per square foot, $100 minimum Public Activity Filing fee only - $5.00	
DREDGING	COASTAL EASEMENT	Negotiable	Mineral Interest Holder Filing fee - $50.00 First-year fee for new dredging - $.02 per square foot, $100 minimum Annual fee for maintenance dredging - $.005 per square foot, $100 minimum (continued)	Mineral Interest Holder - Holder of a lease for oil or gas extraction who plans to dredge on state-owned land outside the leasehold tract to obtain access to the leasehold tract.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
DREDGING (cont'd.)	COASTAL EASEMENT	Negotiable	Private Activity, area encumbered 2,000 square feet or less and channel width 20 feet or less: Filing fee - $50.00 First-year fee for new dredging - $.03 per square foot, $100 minimum Annual fee for maintenance dredging - $.005 per square foot, $100 minimum Private Activity, area encumbered more than 2,000 square feet or channel width more than 20 feet: Filing fee - $50.00 First-year fee for new dredging - $.03 per square foot or negotiated rate, $100 minimum Annual fee for maintenance dredging - $.005 or negotiated rate (continued)	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
DREDGING (cont'd.)	COASTAL EASEMENT	Negotiable	Commercial Activity Filing fee - $50.00 First-year fee for new dredging - $.04 per square foot or negotiated rate, $100 minimum Annual fee for maintenance dredging - $.005 per square foot or negotiated rate, $100 minimum Public Activity Filing fee only - $5.00	
CABINS State-owned structures on coastal public lands	CABIN PERMIT	Not to exceed 5 years	Filing fee - $50.00 Annual fee - $.70 per square foot of attached roofed area, $175 minimum Exception: If the permit was issued prior to the July 18, 1983 rate increase, and if the annual fee will impose an undue financial hardship, the permit holder may apply for a continuation of the previous fee.	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
POWER LINES AND TELEPHONE LINES	RIGHT-OF-WAY EASEMENT	10 years	Filing fee - $50.00 Contract fee - Per-rod charge for 10-year term based on right-of-way width: 0-50 feet - $10 per rod 51-100 ft. - $15 per rod 101-200 ft. - $25 per rod over 200 ft. - $35 per rod Minimum fee - $500/10 years	
ELECTRIC SUBSTATIONS, PUMPING STATIONS, LOADING RACKS, TANK FARMS	SURFACE LEASE	Negotiable, 10-year maximum	Filing fee - $50.00 Contract fee - annual payment, based on percentage per year of appraised market value of area encumbered at time of contract execution	

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
DIRECTIONAL DRILLING LOCATIONS, PLATFORMS, ETC. in the Gulf of Mexico, bays, and tidally influenced areas	SURFACE LEASE	Negotiable, 50-year maximum	Filing fee - $50.00 Contract fee: Nonstate oil and gas - negotiable, $1,000 per year minimum State oil and gas - negotiable, $100 per acre per year minimum	
LEASES OF GULF LAND AND OTHER STATE-OWNED LAND IN THE COASTAL AREA FOR USES NOT ASSOCIATED WITH LITTORAL OWNERSHIP	SURFACE LEASE	Negotiable, 50-year maximum	Filing fee - $50.00 Contract fee - negotiable, $100 per year minimum	These activities may include piers in the Gulf of Mexico or uses of state-owned coastal upland.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
PIPELINES	RIGHT-OF-WAY EASEMENT	10 years	Filing fee - $50.00 Contract fee - per-rod, per-line charge based on outside diameter of pipeline, location, and point of origin. Pipelines origination within state boundaries - minimum fee of $500 for 10 years. See attached table and map. Pipelines originating in federal waters or others carrying nonstate oil and gas - $45 per rod to landfall or point of tie-in within state waters.	

Attachment

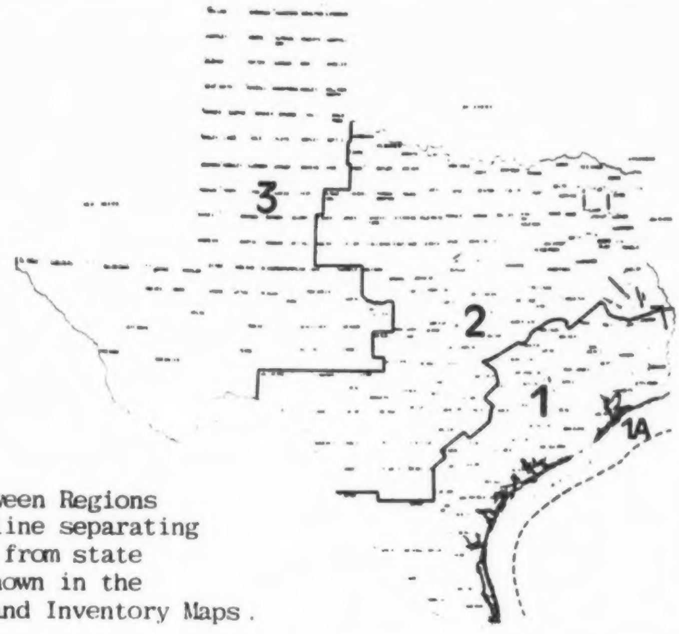
RIGHT-OF-WAY EASEMENTS FOR PIPELINES

Outside Pipeline Diameter	Cost per Rod by Region*				Term
	Region 1**	Region 1A**	Region 2	Region 3	
0" - 13"	$9.00	$5.00	$7.00	$5.00	10 yrs.
Over 13"	$21.00	$13.00	$17.00	$13.00	10 yrs.

Filing Fee $50.00
Minimum Fee $500.00/10 yrs.

* Regions are shown on the map that follows

** Rates for Region 1 may be negotiated at the discretion of the commissioner if the easement application is for a pipeline carrying nonstate oil and gas. Rates for Region 1A may be negotiated at the discretion of the commissioner for any easement application.



The boundary between Regions 1 and 1A is the line separating state bay tracts from state gulf tracts as shown in the TGLO Submerged Land Inventory Maps.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Private piers and other exempt uses	Statutory permit § 62.1-3	Indefinite	None	
Other uses	Permit after hearing § 62.1-3	Indefinite, as long as facility is maintained		

CATEGORY ACTIVITY	SUB-CATEGORY	*RENT/ROYALTY ASSESSMENT
Placement of Fill	Private Beach Nourishment	0-.60 ft.^{2}
	Riprap	0-.20 ft.^{2}
	Conversion of Subtidal Habitat to Wetlands	.05-.30 ft.^{2}
	Timber Jetty/Groin/Boat Ramp	0-.30 ft.^{2}
	Upland Creation	.20-$4.00 ft.^{2}
Crossings	Overhead (Elec./Tel. Transmission)	$1.00/lin. ft.^{2}
	Submerged (Liquid Petroleum Products, Sewage)	.20 x diameter in inches x lin. ft. minimum $1.00/lin. ft.
	Submerged (Gaseous Petroleum Products, Potable Water)	.10 x diameter in inches x lin. ft. minimum $1.00/lin. ft.
Open-Pile Structures	Heavy/Industrial/Commercial	.20-$2.00 ft.^{2}
	Commercial Recreational (Marinas, Fishing Piers)	.10-$1.00 ft.^{2}
	Non-Commercial Mooring (Community Piers)	.05-.50 ft.^{2}
Isolated Structures	Non-Riparian Mooring Buoys/Piles (Commercial)	$100-$500 each
	Non-Riparian Mooring Buoys/Piles (Private)	$50-$250 each
Dredging	New	.20-.60 yds.^{3}

* Annual rental equal to 1/10 single royalty assessment can be prescribed

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
Mineral easements and leases	Easement or lease with right to remove minerals § 62.1-4	5 years which may include a right to renew for an additional period of 5 years	Competitive bids for mineral leasing and extraction	
Sand and gravel	Riparian his right to take § 62.1-190 to 193	Goes with ownership of the upland	None	

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Riparian oyster lease of 1/2 acre	§ 28.1-108	Upon application for duration of ownership of upland	None	
Commercial oyster lease	§ 28.1-109	10-year lease with right of renewal if lease has been worked	$1.50 per acre annually .75 per acre annually in Chesapeake Bay	Limit for individual of 3,000 acres other than Chesapeake Bay, and 5,000 acres in the Bay
Fishing devices, fixed and movable	Title 28.1	Annual permit with right of renewal	$6-$100/year	

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Date 6-30-86

U.S. VIRGIN ISLANDS
(STATE/PROVINCE)

DEPARTMENT OF CONSERVATION & CULTURAL AFFAIRS
DIVISION OF COASTAL ZONE MANAGEMENT
(AGENCY NAME)

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
PERMIT APPLICATION ADMINISTRATIVE FEES- Coastal Zone Management A permit application is required for all development in the Tier I Zone (which is coastal area with defined boundary) and in the Territorial waters to a distance of three miles seaward of the line of mean high tide.	MINOR COASTAL ZONE PERMIT:			- construction shall commence within 12 months of effective date and be continuous until complete; - term of one year maybe extended by written request; - these permits are approved by the Commissioner of the Department of Conservation and Cultural Affairs, (DCCA); - a development conducted completely landward of the line of mean high tide and satisfies one of the following: a) consists of a subdivision or the construction of a one or two single family residence or a duplex on any parcel of record (land only); b) consists entirely of improvements to existing structures, which cost less than $52,000 (land or water); c) consists of one or more structures valued in their entirety less than $75,000. (land or water); d) consists of any other development of minerals, valued less than $66,000 (land or water); e) consists of the extraction of minerals valued less than $17,000 (land or water). - a development to be conducted completely or substantially seaward of the line of mean high tide requiring a minor coastal zone permit, including but not limited to swimming or navigation buoys, moorings for vessels, small intake and outfall pipes, small private, small boat ramps or slips, and underwater transmission lines or cables.
	- Land Projects.	One year to build	$10.00	
	- Land Projects with Earth Change	One year to build	$50.00	
	- Coastal Water Projects*.	One year to build, a lease will be issued for long term use and occupancy of trust land and/or filled lands. Lease term-20 yrs maximum and renewable.	$50.00	

(continued)

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* These comments/considerations apply to all permits issued by DCZM.

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U.S. VIRGIN ISLANDS
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(AGENCY NAME)

Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
PERMIT APPLICATION ADMINISTRATIVE FEES (Con't).	MINOR COASTAL ZONE PERMIT: (Con't)			- all coastal zone permits that include an occupancy or development of trustlands or other submerged or filled lands require the approval of the Governor and ratification of the Legislature of the Virgin Islands. - Applicant must be owner of record or lease with specific rights in lease and long term available, or agent with power of authority.* - Proposed construction shall comply with upland zoning requirements.* - Application fees are non-refundable.* - all coastal water project permits require approval by the U.S. Army Corps of Engineers prior to commencing of construction.*
	MAJOR COASTAL ZONE PERMIT: - Land Projects - Coastal Water Project	One (1) to construct; One (1) to construct; A lease will be issued for the Use and occupancy of trustlands and/or other submerged or filled lands. Lease term-20 years maximum.	$200;** $200;**	- an Environmental Assessment Report is required of all Major Coastal Zone Permits. - term extension requires public notice. - these permits require a public hearing and acted on by the individual Island Committee of the Coastal Zone Management Commission; - a development conducted completely landward or seaward of the line of the following: a) consists entirely of improvements to existing structures which cost more than $52,000. (land or water); b) consists of one or more structures valued in their entirety of more than $75,000 (land or water); c) consists of any other development except the extraction of minerals, valued more than $66,000 (land or water); d) consists of the extraction of minerals valued more than $17,000 (land or water); (Continued)

** The Commissioner may prescribe additional reasonable administrative fees for Major Coastal Zone Permit Application if he finds that consideration of the application requires significant administrative expenditures in excess of those typically required on such applications, including the hiring of consultants when skills, knowledge, or expertise are needed but unavailable in the Department.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
PERMIT APPLICATION ADMINISTRATIVE FEES (con't)	MAJOR COASTAL ZONE PERMIT (con't)			e) consists of any proposed activity likely to have a significant adverse environmental consequence as determined by the Commissioner of DCCA. (land or water); f) consists of a development conducted completely or substantially seaward of the line of mean high tide not considered a minor permit by the Commissioner of DCCA
	AMENDMENT of Lease or Major Coastal Zone Permit	No Change in term	$75.00	- an application for modification of a Coastal Zone Permit shall be treated as a new application for a Coastal Zone Permit unless the Commissioner determines that such modification would not substantially alter or modify the scope, nature or characteristics of the existing permit or approved development. - where the Commissioner finds that such proposed modification would not substantially alter or modify the scope, nature or characteristics, the Committee may nevertheless impose such conditions to approval of the modification as it deems necessary to satisfy the provisions of the Act.
	ASSIGNMENT of Lease or Major Coastal Zone Permit	No change in term	$75.00	- the assignment shall be effective upon the Director's written acceptance of the documentation submitted and written consent of the appropriate Committee of the Commissioner. - no person except the permittee may perform or undertake development under the permit except by assignment or transfer of the permit pursuant to the regulations. - an assignment or transfer of a Coastal Zone Permit shall be considered a modification of an approved Coastal Zone Permit.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Consideration.
ANNUAL LAND LEASE FEES - A lease is required for long term use and occupancy of trustlands and/or other submerged or filled lands.	LEASE - COMMERCIAL	20 years maximum; renewable	12% of current appraised value of land; plus 10% of all sublease rentals, ($500 minimum rental).	-this applies to the long term Use and Occupancy of all the trustlands and/or other submerged or filled lands. under the jurisdiction of the Department.
	LEASE- NON-COMMERCIAL	20 years maximum; renewable	5% of current appraised value of land; plus 5% of all sublease rentals. ($250 minimum rental).	
PERMIT FEES	COMMERCIAL -	20 years maximum;	12% of current appraised value of filled submerged land or if the area is less than 1000 s.f. A flat rental of not less than $0.45/s.f. may be charged. In all cases 10% of all sub permit rentals will be charged. ($200 minimum rental).	- it is Department policy to issue a permit with the construction period as its term, thereafter upon completion of work, a lease will be issued when precise and definite boundaries are surveyed and recorded. - all filled areas are normally zoned the same as and valued at 100% of upland value.*
	COMMERCIAL - Pier or structure on submerged land	20 years maximum;	$0.30/s.f. of pier or structure plus 10% of all subpermit rentals. ($200 minimum rental).	
	COMMERCIAL - Submerged land for boat mooring or docking at a pier or structure on submerged land.	20 years maximum;	$0.15/s.f. Plus 10% of all subpermit rentals. ($200 minimum rental).	- computation of this rental shall be based on all water areas adjacent to piers or structures whose use for boat mooring or docking precludes other use or activity.
	NON-COMMERCIAL Submerged land	20 years maximum;	$0.20/s.f. of occupied filled submerged land. ($100 minimum rental).	- it is Department policy to issue a permit with the construction period as its term, therefore upon completion, a lease will be issued when precise and definite boundaries are surveyed and recorded.
	Non-Commercial - Pier or structure on Submerged Land	20 years maximum;	$0.20/s.f. of pier or structure.	
	Non-Commercial - Submerged land for boat mooring or docking at a pier or structure or submerged land.	20 years maximum;	$0.10/s.f. of water area	- same as above for commercial.

*** Unless otherwise stated, all fees charge pursuant to an approval permit are on an annual basis.

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Policy Name/Description	Type of Tenure/Authorization	Term of Tenure	Pricing Rationale/Rental Rates	Comments/Special Considerations
PERMIT FEES - (Con't)	NON-COMMERCIAL - Dredging	20 years maximum;	$0.50 per cubic yard	- maintenance same as commercial above. - fee is a one time charge.
	CABLES -	20 years maximum;	$100 per cable mile. ($100 minimum rental)	
	PIPELINES -	20 years maximum;	$0.15 per inside diameter inch per floor length. ($100 minimum rental)	
MOORINGS -	COMMERCIAL	1 year; renewable	$3 per foot of vessel length	- anchoring longer than 30 days not permitted.
	PRIVATE	1 year; renewable	$5 per foot of vessel length	- no moorings allowed in certain bays. - one boat, one mooring. - mooring permit renewable when boat registration is renewed.

SUBMERGED LAND TENURE POLICY DATA SHEET

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Commercial water dependent uses, i.e. marinas, shipyard marine terminal, etc.	Lease	Up to 55 years. Averages range between 15 & 30 depending on intensity of development	Rental caluclated by legislated formula. Assessed value of adjacent uplands x 30% x capitalization rate. Current rate is 5%.	Annual rent adjusted each year by change in Producer Price Index. Rent recalculated every 4 years.
Log storage	Lease	10 years maximum	Legislated rate of $170.00/acre/year	Per acre rate adjusted every four years by % change in other aquatic lease rates
Commercial nonwater-dependent rates; i.e. restaurants, shops, hotel, residential	Lease	Up to 55 years average is 30 years	Fair Market Rent based on highest and best use of the property	Existing residential uses "grandfathered". New residential allowed only in certain exceptional circumstances.
Aquaculture	Lease or harvest contracts	1 - 10 years Most are 10 years	Extractive types such as geoduck or shellfish which reproduce naturally and requires little, if any capital investment, pay full fair market value for the resource. Aquaculture activities requiring intensive investment such as salmon net pens pay an economic rent or formula rent whichever is less.	Site plans required. Geoducks 1985 price was .25 lb. Hardshell clams range from $1,200 - $3,000/acre. Mussel leases $50 first three years then up to formula rent.
	Right of Entry Permit	1 year	$50.00	Limited to test purposes only
Sand/Gravel	Lease or Contract of Sale	1 - 5 years	Fair Market Value on per cubic yard basis. Usually negotiated, occasional public auction depending on access to sites. Prices range from $.05 to $.60/cu.yd. depending on proximity to market and quality of material.	

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Oil & Gas	Lease	10 years	Fee set by statute. 1.25/ac/yr minimum plus 12 1/2% royalty when producing	
Minerals	Lease	2 - 20 years	.25-.50/acre, years 1-5 $5.00/acre plus % royalty thereafter. Royalty varies by type of mineral.	Under revision
Private Recreational Docks	Statutory Authorization	Perpetuity of conditions are met	Abutting residential upland owner authorized to construct and maintai dock for own non-commercial use	Limited to four unit multifamily per lot. Legality being challenged before State Supreme Court, January 1987.
Right of Way	Easement or Lease	Lease 30 years Easement in perpetuity	Public Utilities - no charge Other - underwater 0 to -50'= 1/2 upland value -50' to 100' 1/4 upland value -100' = 1/8 upland value Other - overwater Overhead lines = 1/3 above Bridges = 2/3 above	Lease used when use will have an ongoing impact to other biological resources in the vicinity i.e., sewer outfall resulting in automatic decertification of nearby shellfish beds. Term under review.